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by

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled An Aristotelian Dilemma, submitted by Reinaldo Elugardo in partial fulfilment of the requirements for the degree of Master of Arts.

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Reinaldo Elugardo

The University of Alberta
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INTRODUCTION*

The aim of this thesis is to examine a particular problem that arises in Aristotle's metaphysics. In what follows we shall try to state what the problem is and present textual evidence to show that there is a problem.

1. Statement of the problem.

Aristotle contends that the following theses are true:[1]

T1. No universal is substance.

T2. The form is a universal.

and

T3. That which is substance is the form.

If T2 and T3 are true, then

T4. That which is substance is a universal

must be true. But if T1 is true, then T4 cannot be true, since T1 and T4 are contradictory theses.[2] Consequently, the conjunction of T1, T2 and T3 constitutes an inconsistent set of theses.

We shall now consider the textual evidence which supports T1, T2 and T3. Let us begin with T1.

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*There will be an appendix at the end of each chapter which will include a list of the assumptions, theses, and definitions which are discussed in that chapter. The appendix is designed to aid the reader in following the course of discussion in each chapter.

2. No universal is substance.

Metaphysics Z, 13, 1038b8-9 is Aristotle's statement of T1; "It seems impossible for any of the things which are said universally to be substance."

Aristotle presents several arguments to show that T1 is true, the first of which he states in this way:[3]

> The substance of an individual is the substance which is peculiar to it and belongs to nothing else; whereas the universal is common; for by universal we mean that which by nature appertains to several things. Of what particular, then, will the universal be substance? Either of all or of none. But it cannot be the substance of all; while if it is the substance of one; because things whose substance is one have also one essence and are themselves one (1038b10-14).

According to Aristotle, if anything is the substance of some individual, then, for as long as that individual exists, it is the substance of that and only that individual.[4] A consequence of this claim is that the substance of individual $\underline{i}_1$ is, at t, numerically distinct from the substance of individual $\underline{i}_2$ if, at t, $\underline{i}_1$ and $\underline{i}_2$ are non-identical. Let us call this claim: the Axiom of Uniqueness (AU).

We shall formalize (AU) in the following way. Let $\emptyset$ range over substance expressions and $\not\iota$ range over names of individuals. (AU) asserts:[5]

> For any $\emptyset$, for any $\not\iota$, and for any time t, if at t, $\emptyset$ is the substance of $\not\iota$, then at t, $\emptyset$ is the substance of $\not\iota$ and only $\not\iota$.

On the other hand, if $\underline{i}_1$ is F (where F is a universal) and $\underline{i}_2$ is F, at the same time t, then it is false that $\underline{i}_1$'s F is, at time t, numerically distinct from $\underline{i}_2$'s F--although it is true that $\underline{i}_1$ and $\underline{i}_2$

are numerically different. This is because a universal which is common to many things at the same time (1038b11) is numerically the same in all of its instantiations.[6]

Justification for (AU) is required. We shall consider certain passages which might tentatively be evidence for (AU) and present reasons for and against their adequacy.

In 1040b23-25, Aristotle says:

> In general nothing that is common is substance; for substance does not belong to anything but to itself and to that which has it, of which it is the substance.

The above passage could be taken to assert that the substance of a thing is unique to the thing that possesses it, for the substance of a thing cannot be possessed by anything other than the individual thing which has it. On the other hand, the universal can be possessed by more than one individual thing. Consequently, the universal is not unique to any individual thing which has it. Given this interpretation, it would appear that 1040b23-25 supports (AU).

But it could also be shown that 1040b23-25 does not support (AU), for Aristotle could mean that the substance of a thing is unique only to those <u>things</u> which have it. For example, man is unique to the class of individual men; that is to say, man cannot be the substance of anything which is not a man. Moreover, although man is unique to a certain class of individuals, it does not follow that no two individuals of <u>that</u> particular class can have the same substance. Consequently, the substance of a thing is <u>not</u> unique to <u>that</u> individual that has it; rather the substance of a thing is unique to any other individual of the same class as that which has it. The universal is not, however,

unique to any class of individuals. Fcr example, the color white is common to individual men, horses, shoes, etc. If this interpretation of 1040b23-25 is correct, then 1040b23-25 does not support (AU).

Another passage which might be taken as support for (AU) is 1040b16. Aristotle says that "the substance of that which is one is one."

We could interpret this as "the substance of that which is one in number is one in number." If a and b are each one in number but they are not numerically identical, then the substance of a cannot be the substance of b. The reason is that the substance of a will be one in number and the substance of b will also be one in number. Consequently, the substance of a and the substance of b are numerically distinct.

The reply to this is obvious. First, even if the interpretation is correct, it does not follow from the fact that the substance of a thing is numerically one that no other thing can be one in substance with that individual thing. Second, a different interpretation of 1040b16 can be given. Aristotle could mean that the substance of that which is a unity is numerically one.[7] Under this interpretation, 1040b16 does not support (AU), for although the substance of a and the substance of b are each one in number, a and b could be one in substance with each other.

Another passage is 1040b17, in which Aristotle says that "things whose substance is numerically one are numerically one." We could interpret Aristotle's claim as "things whose substance is numerically one are one in number with each other." Under this interpretation, if a

has one substance, then if b has numerically the same substance as a, then a and b are identical.

It would appear that the foregoing remarks do not give an accurate statement of 1040b17 because 1040b17 does not assert that things whose substance is numerically the same are also numerically the same. Furthermore, the above explication of 1040b17 is not only inaccurate but also false. Coriscus and Callias are one in substance with each other. But it is false that Coriscus and Callias are numerically identical.

A more accurate statement of 1040b17 is "things whose substance is numerically one are severally one in number." This could be unpacked to mean several things. I take the point of 1040b17 to be this: if a thing is to be numerically one, then it must be a unit of some kind; that is, some criterion of enumeration must already be in operation in order to count this individual as being one single thing.[8] The criterion of enumeration is a thing's substance, for it is its substance which constitutes the individual as a unity. This allows us to count individuals as units of a certain sort; for example, it is the substance of Socrates which allows us to say that he is one, i.e., singular, man. Furthermore, it is necessary for counting something as one unit of a certain sort, that the substance of a thing be numerically one. If a unity is composed of two substances, then it cannot be one unity[9] because each substance will constitute one unit. That some things which are severally one in number are also one in substance with each other does not support (AU). Thus, if the second interpretation of 1040b17 is accepted, then 1040b17 does not support (AU).

At least, we can conclude that the above passages do not *decisively* support (AU).

There is yet another way of justifying (AU). It is by appealing to the argument which Aristotle gives in 1038b10-14. We claim that Aristotle's argument is valid only if a principle like (AU) is assumed as one of its premises.

The argument may be put in this way:

1) The universal is substance at any time t.

2) If, at t, the universal is substance, then, at t, it is the substance of just one individual *i*, or it is the substance of all things of which it is common.

Hence

3) The universal at t is the substance of just one individual *i*, or it is, at t, the substance of all things of which it is common. (1) (2)

4) If at t the universal is the substance of all things of which it is common, then, at t, the substance of an individual *i* is the substance of any other individual which shares the same universal as *i*, but which is not numerically identical with *i*.

But the consequent of (4) violates (AU). Thus, if (AU) is true we can infer:

5) It is false that, at t, the substance of an individual *i* is the substance of any other individual which shares the same universal as *i*, but which is not numerically identical with *i*.

Hence

6) It is false that, at t, the universal is the substance of all things of which it is common. (4) (5)

Hence

7) The universal is, at t, the substance of just one individual *i*. (3) (6)

8) If, at t, the universal is the substance of just one individual *i*, then, at t, all things which are one in substance with *i* are one in number with *i*.[10]

9) It is false that, at t, all things which are one in substance with *i* are one in number with *i*.

Hence

10) It is false that, at t, the universal is the substance of just one individual *i* (8) (9)

Hence

11) It is false that, at t, the universal is the substance of all things of which it is common, or that, at t, the universal is the substance of just one individual *i*. (6) (10) and *DeM*.

At this stage of the argument Aristotle could conclude--*via* the operations of *Commutation* on (11) and then *Modus Tollens* on (2) and (11) --that it is false that, at any time t, the universal is substance; that is, Aristotle could conclude that premise (1) is false. But he elects to carry out the implications of premise (1).

The next premise of his argument is this:

12) If, at t, it is false that either the universal is the substance of all things of which it is common, or it is the substance of just one individual *i*, then, at t, the universal is the substance of nothing.

13) But it is false that, at t, the universal is the substance of nothing; for if it is substance, then it must be the substance of something.

Hence

14) Either the universal is, at t, the substance of all things of which it is common, or the universal is, at t, the substance of just one individual *i*. (12) (13) and *Double Negation*.

By the rule of *Conjunction* we can infer (14) and its denial, viz. premise (11). Finally, we can conclude by the method of a *reductio* on (1) and the conjunction of (11) and (14) that premise (1) is false.[11]

Some comments are in order for the justification of certain key premises in Aristotle's argument. Premise (4). Aristotle's justification for this premise is this: if many things could share at the same time one and the same universal, and if the universal is substance, then it follows that the substance of a thing could be shared by many individuals at the same time. Premise (8). If, at t, many things could be said to be one in substance with each other, and if, at t, the universal is the substance of a thing, then if (AU) is true, it follows that, at t, all things which are one in substance with each other must be one in number with each other.[12]

At this point we shall not consider the effectiveness of Aristotle's argument. It is only important to note that he does give an argument to establish the truth of T1. Consequently, Metaphysics Z, 13 is evidence for the view that Aristotle holds T1.

Let us now consider the evidence for T2.

3. The form is a universal.

Aristotle does not explicitly state T2 in the way that he explicitly states T1. But it can be argued that, on the basis of what he says about form, universals and specific identity, Aristotle is committed to T2. Let us reconstruct the steps which lead to this commitment.

In 1033b25, Aristotle makes the following observation:

> The whole individual, Callias or Socrates, corresponds to this bronze sphere, but man and animal corresponds to bronze sphere in general.

Aristotle is making a comparison which could be put in this way:

Callias (or Socrates) and this bronze sphere are alike in that they are individuals; that is to say, Callias and this bronze sphere are similar in that each is a this.[13] It would be more accurate to draw the comparison between this man (who is Callias) and this bronze sphere, rather than between this bronze sphere and Callias. The reason is that Aristotle will draw a disanalogy between bronze sphere and this bronze sphere which will allow him to make an inference about the relationship between man and this man; for he claims that man and bronze sphere are similar in a certain respect.

The similarity between man and bronze sphere could be drawn in the following way: just as bronze sphere is not a this, since many individual things are said to be severally a bronze sphere, so man is not a this since many individual things are said to be severally a man. It follows that just as bronze sphere is a non-particular--i.e., not a this--so man is a non-particular. Furthermore, if neither man nor bronze sphere is a this, then it follows that man and bronze sphere are not (a) indivisible nor (b) numerically one; each, with its respective name, is (c) predicable of some subject.

But we have not shown that man (or bronze sphere) is a universal. All that has been shown is that man is a non-particular.[14] It must be established that man qua non-particular is a universal.

It will be recalled that a universal is "that which by its nature appertains to several things" (1038b12). To put it another way: a universal is that which is "common to many things" (1038b11).[15]

Now we have said that man is a non-particular, since many individual men, e.g., Socrates, Callias, Coriscus, etc., are severally

a man. Consequently, man is predicable of many individual men.[16] It follows that we have a case in which a non-particular is a universal: man. Furthermore, Aristotle explicitly says that man is a universal (On Interpretation, 17a38).

The final step which would show that Aristotle is committed to T2 is a premise which asserts that man is a specific form. In 1034a9 Aristotle claims that Callias and Socrates are numerically different because their "matter is different; but (Callias and Socrates are) identical in form, because the form is indivisible."[17]

It would appear that by "form" Aristotle does not mean shape, position, or ability,[18] for he could deny that Socrates and Callias are alike in shape, position, and ability, but yet assert, without any inconsistency, that they are formally identical. Hence the sense of "form" which is operative in this context (1034a9) is specific form, for both Socrates and Callias are of the species man. Consider the following quotation:

> The individuals comprised within a species, such as Socrates and Coriscus, are the real existents; but in as much as these individuals possess one common specific form it will suffice to state the universal attributes of the species, that is, the attributes common to all its individuals . . . (De. Part. An., 644a24-25.)

The specific form which Callias and Socrates have in common is the form man, for Callias is a man and Socrates is a man. Furthermore, it has been said that whatever is predicable of many things is a universal. It follows that man qua specific form is a universal since any specific form is predicable of all the individuals of its kind.[19]

It may be concluded that, on the basis of his views on form, universals and formal identity, Aristotle is committed to T2.

4. That which is substance is the form.

In Metaphysics Z, 17, 1041a6-7, Aristotle says that whatever is said to be substance must be a formal cause:

> Let us approach afresh the question of the nature of substance; we may thus learn about the substance that exists apart from sensible things. We start with the fact that substance is a originative source and cause.

Aristotle also says that whatever is said to be a formal cause must be such that it can be cited as the answer to a question of the form: "Why are these pieces of matter a such-and-such kind?" Consider Aristotle's remark:

> One really asks, 'Why is this material a certain thing?' 'Why are these things a house?' Because the essence of house is present in them. Thus we are looking for the cause by reason of which the matter is something (1041b4-8).

It follows from these passages that the essence of a thing must be a principle which constitutes pieces of raw material as being individuals of a certain sort. In short, the essence of a thing is its formal cause. In 1041a27 Aristotle identifies the formal cause with the essence of a thing:

> Evidently, then, we are looking for the formal cause, i.e., (speaking abstractly) for the essence.

The essence of a thing in turn is identified with the thing's form, for Aristotle says that "by form" he means "the essence of each thing" (1032b1). It follows that substance is the form of a thing. Aristotle says that the substance of a thing is the formal cause of

that thing which in turn is its essence.[20] Indeed this is Aristotle's conclusion in Z, 17:

> Therefore what we are seeking is the cause, i.e., the form, whereby the matter is some definite thing; and this is the substance of the thing (1041b6-9).

In his discussion of the sense in which artifacts could be called a substance, Aristotle makes the following observation:

> Some things of course are not substances at all, but only such as are held together according to nature and by nature. Therefore this 'nature,' which is not a material element but a principle, would appear to be substance (1041b29).

Judging from the context in which Aristotle is speaking, we can reasonably assume that by "nature" he means that which unifies pieces of raw material into an individual of a certain sort. This principle of unity is according to Aristotle the form (1041b6-9). Hence the nature of a thing is its form. It also follows that the form is substance, since Aristotle states that the nature of a thing is substance.[21]

It would appear, then, that Z, 17 provides ample evidence for the view that Aristotle holds T3.

5. Proposed solutions.

If Aristotle is to be rescued from the charge of inconsistency, it must be shown that at least one of the three theses, viz. T1, T2 or T3, is an inaccurate statement of his metaphysical views. Indeed we shall examine several proposals which attempt to solve the problem of inconsistency.

The following proposals have been offered:

Proposal (1). Aristotle does not maintain T1.[22] What he maintains is this:

T1'. Nothing which is universally predicable is substance.

According to proposal (1), if T1' is true, it would not follow that T1 is also true; that is, Aristotle could maintain that anything which is universally predicable cannot be substance, while at the same time assert that a universal can be substance.

Proposal (2). Aristotle does not hold T2 but rather the following:[23]

T2'. The form is a particular.

Proposal (2) contends that, in Aristotle's ontology, there are individual forms. An individual form is not according to this proposal a universal, for an individual form is peculiar to that thing which has it;[24] for example, the health of this man and the health of that man are numerically distinct for the reason that two non-identical men are said to be healthy. Consequently, the health of this man cannot be the health of that man, and vice versa. Hence the health of this man, as well as the health of that man, cannot be a universal, for a universal is numerically the same in all of its instantiations.

This proposal claims that there is strong evidence--particularly in Metaphysics, Book Lambda--which indicates that Aristotle does hold T2'.

Proposal (3). "Substance" is ambiguous.[25] The sense in which substance is said to be the species "form" (T3) is different from the sense in which no universal is said to be substance (T1). If "substance" is ambiguous, then the principle which licenses the inference of T4 from T2 and T3 (i.e., "that which is substance is a universal") will not yield a conclusion which contradicts T1. If the sense of "substance" which

is operative in T1 is different from that which is operative in T4, the conjunction of T1, T2 and T3 will not constitute an inconsistent set of theses.

6. Statement of objective.

We shall consider the adequacy of these three proposals.

In Chapter I we shall consider two interpretations of Woods' argument for proposal (1). The first interpretation entails certain views which are rejected by Aristotle. Moreover, if the first interpretation is an accurate statement of Woods' argument, then the argument is unsound. But if the second interpretation, which is more sympathetic to Woods' position, is correct, then Woods' argument is sound. We shall consider the question of which interpretation is best supported by Woods' article.

In Chapter II we shall examine the arguments which are put forth by Albritton for proposal (2). We shall try to show both that his arguments are unsuccessful and that the passages which Albritton cites do not support proposal (2).

In Chapter III we shall consider the arguments for proposal (3). We shall argue that, although "substance" is ambiguous in Aristotle's writings, it does not follow that the expression occurs ambiguously in T1 and T3. We shall also consider Lesher's arguments to show that although many different kinds of things are said to be substance, "substance" is an unambiguous expression in Aristotle's works.[26] We hope to show that Lesher's arguments do not work.

In Chapter IV we shall offer our solution to Aristotle's problem. We shall argue that T1 is false. We shall contend that although it is not the case that all universals are substance, it does not follow that no universal is substance. In short, we shall argue that some universals are substance.

The argument for our solution will rest upon the following two assumptions:

As1. If A is truly predicable of every specimen of at least one kind then A is a universal.

As2. If A is substance, then A is truly predicable of every specimen of exactly one kind.

We shall argue that As1 and As2 are true.[27] We shall also try to show that if A is truly predicable of every specimen of exactly one kind then A is not universally predicable. Thus, if As1 is true, some universals are not universally predicable. It is these universals which are substance. Consequently, some explication of "universally predicable" will be given. Certain objections to our thesis will be considered and replies will be given to these objections. Finally, we shall present several plausibility arguments on behalf of our thesis.

FOOTNOTES TO INTRODUCTION

[1]It might be said that "substance" occurs ambiguously in T1 and T3. T1 asserts that no universal is a substance. T3 asserts that the substance of a thing is the form. "Substance" means the material object in T1, whereas it means the essence or the species form of a thing in T3.

In Chapter III we shall contend that "substance" cannot be taken to mean the material object in T1. We shall argue that "substance" means the species form of a thing in T1 and T3.

[2]The obvious reply is that T1 and T4 are not contradictory theses. The reason is that "substance" occurs ambiguously in T1 and in T3. (See Footnote 1). If this is correct, then the sense of "substance" that is operative in T4, which is entailed by T2 and T3, is different from that which is operative in T1. Hence T1 and T4 are non-contradictory.

We shall consider the cogency of this argument in Chapter III.

[3]Some commentators, e.g., Michael Woods, do not take 1038b10-14 as Aristotle's first argument for T1. (Indeed, Woods contends that Aristotle does not hold T1.) This point will be taken up in more detail in Chapter I.

[4]The force of "A is the substance of a and only a at t" could be put in this way:

(1) For any x, and for all time t, if $a \neq x$ at t, then if A is the substance of a at t, then A is not the substance of x at t.

The truth of (1) is dependent upon what interpretation is given to "the substance of a thing." If we interpret A as man and a as Socrates and if "the substance of a thing" means the species form of that which has it, then (1) is false. Although Socrates and Coriscus are non-identical at t, they have the same species form since they are severally a man. Thus Socrates and Coriscus are one in substance with each other at t.

But if by "the substance of a thing" Aristotle means the formal cause which exists as a part of a thing, then (1) is true. If Socrates and Coriscus are non-identical at t, then the parts which make up Socrates cannot be the parts which make up Coriscus at t and vice versa.

[5]Note that if A is replaced by a genus name from the category of substance, and a is replaced by a species name from the same category then (AU) is false. Consider the following substitution-instance of (AU):

> (1') For all time t, if animal is the substance of man at t, then animal is the substance of man and only man at t.

(1') is false since animal would be the substance of other animals which are not men at t, if animal is substance at t. For example, animal would be the substance of horse, beaver, etc.

Thus if (AU) is to be true (AU) must rule out genera as substance.

If all occurrences of the constants in (AU) are replaced by the same species name from the category of substance, then (AU) will be trivially true. For example, it is tautologically true that if man is the substance of man at t, then man is the substance of man and only man at t.

The point in all this is twofold. First, although Aristotle presents the uniqueness principle with reference to individuals, it is important to note that some universals can meet (AU). This point will be discussed in Chapter I. Second, the fact that other universals cannot meet (AU), e.g., animal, is support for the claim that some universals are substance whereas others are not. Specifically, those universals which fail (AU) are not substance for they are universally predicable; that is, they are predicable of more than one kind of thing. On the other hand, those universals which meet (AU) are substance. They are not universally predicable for they are predicable of exactly one kind of thing. A defense of these claims will be made in Chapter IV.

[6]In Chapter IV we hope to clarify the sense in which a universal is said to be "predicable of many things" or "common to many things." Specifically, we shall argue that, for Aristotle, a sufficient condition of something being a universal is that it be truly predicable of every subject of at least one kind. This contention is, as we shall see, a major step in our solution of Aristotle's dilemma.

[7]This interpretation is consistent with Aristotle's view that a per se unity cannot be composed of two substances. In 1039a8-14 he says:

> If the substance is one, it will not consist of substances present in it and present in this way, which Democritus describes rightly; he says one thing cannot be made out of two nor two out of one; for he identifies substances with his indivisible magnitudes. It is clear therefore that the same will hold good of number, if number is a synthesis of units, as is said by some; for two is either not one, or there is no unit present in it in complete reality.

[8]The claim that in order to count units there must be some criterion of enumeration, i.e., the substance of a thing, has its support in Metaphysics Δ 6, 1016b18-20:

> The essence of what is one is to be some kind of beginning of number; for the first measure is the beginning, since that by which we first know each class in the first measure of the class; the one, then, is the beginning of the knowable regarding each class. But the one is not the same in all classes.

In N1, 1088a4-9, he says:

> for 'the one' means the measure of some plurality, and 'number' means a measured plurality and a plurality of measures. (Thus it is natural that one is not a number; for the measure is not measured, but both the measure and the one are starting-points.) The measure must always be some identical thing predicable of all the things it measures, e.g. if the things are horses, the measure is 'horse', and if they are men, 'man'.

[9]See footnote (7).

[10]The notion of formal identity is discussed in Topics A7 and in Metaphysics Δ 6. In the Topics Aristotle speaks of things being specifically the same. Two things are said to be specifically the same if they are similar with respect to their species, e.g., this man is the same as another (man). In Metaphysics Δ 6 Aristotle discusses the notion of a thing being essentially one with another thing. A criterion that he gives for this relation is this: a is essentially one with b, if a and b are one in substance with each other. It is important to note that a and b could be essentially one with each other, but yet remain numerically distinct. It is this feature which justifies Aristotle's claim that the consequent of premise (8) is false.

[11]Technically speaking, a contradiction entails any proposition. Hence from the conjunction of (11) and (14) we can infer that premise (1) is false. But it appears that Aristotle is concerned with showing that a contradiction follows from premise (1).

[12]It might be said that premise (2) requires some justification. The justification is this. If at t the universal is the substance of a thing, then at t the substance of a thing will have incompatible properties: it will be at t unique to that of which it is the substance --if (AU) is true; and it will also be at t common to other individuals. To avoid this problem it must be the case that, if at t the universal is the substance of a thing, then at t either it will be the substance of just one thing, or it will be the substance of all things of which it is common--but not both.

[13]The conditions which constitute the thisness of an individual are as follows:

For any x, x is a this, iff:
(i) x is indivisible (Cat. 3b10-14)
(ii) x is numerically one, i.e., singular (Cat. 3b10-14)
(iii) Neither x, nor its name, is predicable of any subject (or any kind) (1001b31-32, 17a38)

It should be pointed out that the force of condition (i) is not that x is a simple in some technical sense of "simple," e.g., Wittgenstein's notion of a simple; it is rather that x cannot be divided into different kinds of species. To put the point another way: condition (i) asserts that x is a specimen of some species.

[14]James H. Lesher suggests that there is a distinction between a non-particular and a universal. (See "Aristotle on Form, Substance, and Universals: A Dilemma," Phronesis, XVL, No. 2, 1971, 169-78.) It is not clear, however, what this distinction is. Presumably it is connected with Aristotle's doctrine of immanent form, for Lesher says that "the doctrine of immanent form does not commit Aristotle to non-particulars" whereas it does commit him to universal substances (178).

Two points should be made. First. It is not clear what this connection amounts to. Consequently, we are not any more enlightened on the distinction between a non-particular and a universal. Second. Intuitively speaking, it would seem that if anything is a non-particular, i.e., if anything is not a this, then it should follow that it is a universal, and vice versa. To put it another way: the set of universals and the complementary set of all particulars are identical.

[15]See note (6).

[16]This is not to be interpreted as "man is universally predicable of many individual men." From the fact that man is predicable of many individual men, it does not follow that man is universally predicable of many individual men. The difference between "predicable of" and "universally predicable of" will be discussed in Chapter IV.

[17]In this context Aristotle means by "indivisible" that the form of Callias and the form of Socrates are numerically the same; that is, the form which Callias has is numerically one and the same form which Socrates has, and vice versa. (Note that this sense of "indivisible" differs from that which constitutes thisness, note (8)). Some philosophers, e.g., Albritton et al., deny that Callias' form and Socrates' form are numerically the same. We shall discuss their position in Chapter II.

[18]In various places in his writings Aristotle uses "form" (eidos) to mean several things. "Form" is occasionally used to indicate the shape of something; for example, what constitutes this piece of bronze material as a status is its shape (1029a5-7). "Form" is sometimes used to indicate the spatial position of something; for example, what constitutes this piece of wood as a lintel is its horizontal position in such-and-such a place (1042b25). "Form" is also used to indicate a set of abilities; for example, what constitutes this bundle of wood and metal as a knife is its ability to cut meat, etc. Finally, "form" indicates a temporal relation; for example, what constitutes this meal as breakfast and not dinner is that it is eaten in the early part of the day. At other times, Aristotle identifies the form of a natural object (e.g., a house) with its final cause; and identifies the form of a natural phenomenon (e.g., thunder) with the efficient cause, viz. 1041a27.

[19]It should be noted that some universals, e.g., man, are truly predicable of many things of their kind and only their kind, e.g., this man. On the other hand, some universals, e.g., white, are truly predicable of many things of their kind and of other kinds, e.g., the white in this man and this man. In Chapter IV we shall give arguments to show that this difference of universality is implicit in Aristotle's writings.

[20]David Sachs has argued that for Aristotle no form can be substance. (See "Does Aristotle have a Doctrine of Secondary Substances?" Mind, LVIII, 1948, 221-25.) His argument is this: whatever is neither separable nor individual is not substance; forms or species are neither separable nor individual; therefore, forms or species are not substance (224-5). He cites 1029a28 as evidence for his first premise; and he cites 1042a28 as evidence for his second premise.

The following replies can be made against Sachs' argument. First. The second premise is false, for Aristotle says in 1045a35, 1070a11 and 13-15, that the form is a "this". (Ross interprets these passages to mean that "the form is the element that gives individual character," p. 310.) Furthermore, Aristotle says in 1017b25-27 that the form is separable. (Ross interprets Aristotle as saying that eidos is "separable in thought," p. 311.) Second. The conclusion of Sachs' argument is false, for Z, 17 is Aristotle's statement that form is the substance of a thing.

[21]And this is the substance of each thing (for this is the primary cause of its being); and since, while some things are not substances, as many as are substances are formed in accordance with a nature of their own and by a process of nature, their substance would seem to be this kind of 'nature', which is not an element but a principle. (1041b27-31).

[22]Michael Woods, "Problems in Metaphysics Z, Chapter 13," in Aristotle: A Collection of Critical Essays, J.M.E. Moravcsik ed., (New York: Doubleday, 1967), 215-38.

[23]Rogers Albritton, "Forms of Particular Substances in Aristotle's Metaphysics," Journal of Philosophy, Vol. LIV, No. 22, (October, 1957), 699-708.

[24]The assumption here is that in virtue of being peculiar to an individual, the form of that individual is a particular.

[25]Several commentators have held this position. The most recent is: A.R. Lacey, "Ousia and Form in Aristotle," Phronesis, Vol. X, No. 1, 1965, 54-69.

[26]Leshers' arguments appear in his article "Aristotle on Form, Substance, and Universals."

[27]As2 is a premise in our main argument. But it is also a controversial premise in that Aristotle seems to deny As2 in Z, 13. Thus, to avoid any question-begging, we shall assume at the outset that As2 is false. But we hope to show that the rejection of As2 is inconsistent with certain views which are maintained in Metaphysics VIII. If we are successful in showing this to be the case, then we can give some reasons for denying the falsity of As2.

APPENDIX TO INTRODUCTION

<u>T1</u> No universal is substance.

<u>T2</u> The form is a universal.

<u>T3</u> That which is substance is the form.

<u>T4</u> That which is substance is a universal.

(AU) For any $\emptyset$, for any $\not\emptyset$, and for any time t, if at t, $\emptyset$ is the substance of $\not\emptyset$, then at t, $\emptyset$ is the substance of $\not\emptyset$ and only $\not\emptyset$.

<u>As1</u> If <u>A</u> is truly predicable of every specimen of exactly one kind then <u>A</u> is a universal.

<u>As2</u> If <u>A</u> is substance, then <u>A</u> is truly predicable of every specimen of exactly one kind.

CHAPTER I

Our objective in this chapter is to examine the adequacy of proposal (1). Specifically, we shall consider Woods' claim that in Metaphysics Z, 13, Aristotle contends that nothing which is universally predicable is substance.[1] We shall examine the arguments and the textual evidence which are given in support of this claim.

The chapter will be divided into five sections. In the first section we shall present Woods' interpretation of the problem which is presented in our Introduction. In the second section we shall state Woods' solution to the problem. In the third section we shall give one interpretation of Woods' argument for his solution. We shall try to show that this interpretation entails certain views which Aristotle rejects. Moreover, we shall argue that if this interpretation is an accurate statement of Woods' argument, then the argument is unsound. In the fourth section we shall present a different interpretation of Woods' argument. It will be argued that if the second interpretation is correct, then Woods' argument is sound. In the final section we shall consider which of the two interpretations is supported by what Woods actually says in his article. We shall argue that the second interpretation is the most plausible of the two interpretations.

1. Woods' interpretation of Aristotle's problem.

Woods puts Aristotle's problem in this way:

> . . . from the identification of εἶδος with τί ἦν εἶναι and of this with πρώτη οὐσία at 1032b1-2 . . .

> Aristotle is presumably committed to holding that the form of the species man is substance. But this seems incompatible with the doctrine that nothing καθόλου can be substance; for man is surely predicated universally of Socrates, Callias, etc. How can the species man be an οὐσία, if any οὐσία has to belong ὡς' ἴδιον to that of which it is the οὐσία? (219).

According to Woods, Aristotle holds that the following propositions are true:

1) The per se unity is essentially identical with its essence.

2) The species form is identical with the essence of a per se unity.

From (1) and (2) we can conclude:

3) The species form is substance.

But it is claimed that Aristotle also holds the following propositions to be true:

4) Nothing universally predicable can be substance.

5) The form of the species man is predicated universally of Socrates, Callias, etc.

Propositions (4) and (5) are, however, incompatible with (3). The reason for this is that if a per se individual is essentially identical with its essence, then it follows that the essence of a per se individual is a this, for that of which it is the essence is a this.[2] But if the form of the species is the essence of a thing, then it follows that the species form cannot be universally predicable. The reason is that the essence of a per se individual is a this and nothing which is a this is universally predicable (On Interpretation, 17a38). The species form is universally predicable, for many individual things are said to be one in specific form with each other. Hence the species form is a universal. But this contradicts the claim that the species form is a this.

2. Woods' solution to Aristotle's problem.

Given Aristotle's dilemma, Woods presents what he takes to be Aristotle's solution.

The solution is this: Aristotle contends that nothing which is universally predicable is substance. Consider:

> Aristotle is simply saying that nothing that is predicated universally can be substance, unless the plurality of objects of which it is predicated can themselves be said to be one in a certain sense (224).

If the species man is common to all individual men then if Woods is correct it follows that the species man must not be universally predicable of each individual man. This is in fact what Woods claims:

> If we . . . wish to hold that when Aristotle says that the εἶδος is οὐσία he has in mind a form common to all members of a species, we must suppose that he would have denied that the form man is predicated universally of Socrates, Plato, Callias (225).

It would also follow from Woods' comments that if the genus animal is universally predicable then the genus animal is not substance. Indeed, Woods claims that because the genus is universally predicable Aristotle does not hold the genus to be substance. Woods says:

> If genera, by contrast, are predicated of a plurality of objects, we have found a way of interpreting chapter 13 which allows Aristotle, consistently with his own doctrine that substance is form, to deny that anything predicated universally is a substance. For the remarks about τὰ καθόλου λεγόμενα will have application only to the genera. I wish to claim that this is precisely the position that Aristotle adopts in Metaphysics Z (225).

Thus, on Woods' view, the species form man is substance since man is not universally predicable of any individual. Furthermore, at least one universal, i.e. man, is substance, for the species man is common to all of its members. Hence T1 is false.

To put Woods' position another way: Aristotle does not hold proposition (5) to be true; and proposition (4) is true only if what (4) asserts is that nothing which is universally predicable of many things is substance.

It might be said that if Woods' view of Z, 13 is correct, then Aristotle must have given up the theory of predication that is espoused in his early works, for in the Categories and On Interpretation Aristotle says that man is universally predicable of individual men.[3]

Woods concedes this point as a consequence of his position:

> This doctrine that the form of a species is not predicated universally of the members of the species involves an obvious departure from the sort of view advanced in, for example, the Categories. Indeed it might be said that the theory rejected in chapter 13 is as much the theory held by Aristotle himself earlier as it is that of Plato . . . (225).

Woods' however, does offer an emendation. He leaves open the possibility that Aristotle allows the name of the species to be universally predicable of many things (226).

But Woods still maintains his thesis. He says that "for the problems with which he [Aristotle] is concerned in Z, 13, it is incorrect to say that a species form is predicated universally of a plurality of individuals" (226). Woods cites 1038b9 as evidence for his claim. In this passage Aristotle says that "it seems impossible for any of the things which are said universally to be substance." Woods takes Aristotle to be claiming that "no οὐσία (and therefore no species) is καθόλου λεγόμενον" (226).

3. <u>An interpretation of Woods' argument for the claim that the species form is not universally predicable.</u>

At this point we shall present an interpretation of Woods' argument for his thesis and reveal the implications of this interpretation.

Woods presents his argument in the following way:

> It is the species-form man which supplies us with a principle of individuation for man: it is only in virtue of possessing the form man that bits of matter which constitute men are marked off from one another. To speak of a plurality of objects I need some means of marking off each member of the set from other things; I do this, according to Aristotle, by recognizing occurences of certain form in matter. Thus I must regard things as possessing the form before I can think of objects as a genuine plurality. In so far as the statement that the form is predicated universally of its members implies the contrary of this, it is incorrect (237).

Woods' argument seems to be the following. A necessary condition for distinguishing numerically distinct individuals is that one be able to recognize the species form in pieces of matter. Now if the species form is truly predicable of many things then a plurality of objects will have the same species form. But if a plurality of objects have the same species form then--assuming that the species form is the principle of individuation--one cannot numerically distinguish one individual from another. No two individuals will differ with respect to their specific form provided that the species form is truly predicable of both individuals. Since we can individuate a plurality of objects, it follows that things cannot have the same specific form. If this is true then the species form is not truly predicable of a plurality of objects. A consequence of this interpretation is that

no two things could ever be of the same species. From the fact that it is the species form which individuates things it follows that individuals which are putatively the same in species could never be distinguished in number. If two objects, A and B, are of the same species, then A and B do not differ with respect to their specific form. If the species form is the principle of individuation and A and B are one in specific form with each other, it ought to follow that A and B are identical. Hence it is necessarily false that we can individuate two things which are of the same species if it is a necessary condition for individuating a plurality of objects that one be able to recognize the species form in pieces of matter.

Now if it is the case that no two individuals could ever be of the same species, then Woods must claim that one or the other of the following is true: either

a. There are no species.

or

b. Any two individuals are of different species.

The first alternative can be rejected on the grounds that Woods does speak of a species form; he speaks of "the form of a species." Hence Woods is committed to the denial of a. It follows that b must be true for Woods.

But Aristotle rejects b. In Topics A7 he distinguishes specific sameness as one sense of "same":

> There is specific sameness when there are several things but they do not differ in species, e.g., one man and another man, one horse and another horse; for such things as fall under the same species are said to be specifically the same. (103a10-15).[4]

Aristotle also says that Socrates and Callias, who are the same in species form, are not numerically identical (644a24-25 and 1034a9).

If the interpretation which we have presented is an accurate statement of Woods' argument, then we can present at least two objections which can be directed against his argument. Afterwards, we shall present two assumptions upon which these objections are based.

The first objection is this. Woods' argument is unsound because the species form is not the principle of individuation. It is matter which functions as the principle of individuation (1024a5-8, 1016b32, 1054a34, 107a31-34.) The species form does not individuate objects of a certain kind for no two objects of the same kind will differ with respect to their species form.

The second objection is as follows. Woods' argument assumes that there is a distinction between a universal, i.e., the species form, and that which is universally predicable of many things. This assumption is false. In 1038b9 Aristotle says that nothing predicated universally is substance. No mention is made of the species form in 1038b9. Aristotle also says that the species form is substance. Hence Aristotle ought to say that the species form is not universally predicable of many things. Instead, what he does say is that the species form is predicated of its specimen. This claim would imply that the species form is universally predicable. Thus, Woods has failed to show that there are grounds for distinguishing a universal from that which is universally predicable.

It should be noted that for these objections to be effective, the following assumptions must be true:

(A1) By "individuation" Woods means a principle by which individuals of a certain kind can be numerically distinguished.

(A2) By "universally predicable" Woods means being truly predicable of numerically different individuals of a certain kind.

If (A1) is true, then if the species form man is the principle of individuation, then it is the species form man which distinguishes one man from another man. If (A2) is true, then if the species form man is not universally predicable, then it is not truly predicable of any individual man. We can see that both cases lead to problems. In the first case, no two men are of the same species. In the second case, we cannot truthfully say of any individual man that he is a man.

The way out of these problems is to deny that (A1) and (A2) are true. This is the move which is made in the second interpretation of Woods' argument which we shall now consider.

4. A second interpretation of Woods' argument for the claim that the species form is not universally predicable.

(A1) is rejected. We might claim instead that by "individuation" Woods means that principle by which a class of individuals can be distinguished from its complementary class; for example, it is the species form man which picks out the class of men from the class of non-men. This does not imply that the species form man numerically distinguishes Socrates from Coriscus. The reason is that the species form is not the principle by which the specimen of a species are

numerically distinguished. It is matter which numerically distinguishes specimen of a certain species.

Woods' first premise is then, as follows: in order to individuate one man from another man, it is necessary that we have already at hand some means of marking off individual men from other individuals which are not men. In so far as this view is attributable to Aristotle, Woods' first premise is true, for in N1 1088a4-9 Aristotle says:

> "the one" means the measure of some plurality . . . the measure must always be some identical thing predicable of all the things it measured, e.g., if the things are horses, the measure is horse; and if they are men.[5]

The measure is identified with the species form. Thus, it is the species form which picks out a class of individuals and which is necessary for counting individuals of that class.

(A2) is rejected. Although the species form is not universally predicable, it is truly predicable of its specimen. The species form is not universally predicable in that it is not truly predicable of specimens of any other species. Now since the species form man is not universally predicable, it follows that the species form man picks out <u>only</u> the class of individual men. It is in this sense that the species form meets the uniqueness condition which is presented in Z, 13. If the species form meets the uniqueness condition, then we can draw the following inferences which Woods makes in his argument. First, some universal can meet the uniqueness condition, for the form man is a universal and it designates exactly the class of individuals. Second, some universal is substance, for the form man meets the uniqueness condition for substantiality.

It would appear that if the second interpretation is correct, then Woods' argument is sound; if the species form man is universally predicable, then it cannot uniquely pick out a class whose members we can numerically differentiate. But since we can numerically distinguish one man from another, we must already have some means of picking out the class of men from the class of non-men. Thus, the species form man cannot be universally predicable.

In the next section we shall examine which of the two interpretations is the most plausible interpretation of Woods' argument.

5. Several arguments to show that the second interpretation is a more plausible interpretation of Woods' argument.

The following arguments will fall into two lots, one of which consists of arguments which are dependent upon what Woods actually says in his article. The other lot which we shall present first, consists of those arguments which are not dependent upon the text.

Non-textual arguments.

Argument (1). It might be argued that the first interpretation is implausible because no one who is presenting Aristotle's views on certain issues would hold a position which supports views that Aristotle rejects. Thus, the second interpretation is the more plausible of the two.

As an argument for fostering philosophical inquiry, the preceding remark is well taken. The point is that we should at least give a hearing to Woods' position. But as an argument to show that the second interpretation is the most plausible, argument (1) begs the question. It is assumed that no one could ever hold the views that are espoused

in the first interpretation, but this does not appear to be obviously true. Consequently, it does not establish that the second interpretation is more plausible than the first interpretation.

Argument (2). The notion of a principle of individuation is a technical philosophical notion. It is used to mean a characteristic or a set of characteristics the possession of which served as the basis for numerically distinguishing individuals of a certain kind. It is difficult to see how one can equivocate on "individuation." Moreover, the first interpretation is using "individuation" correctly. This should constitute some evidence for the plausibility of the first interpretation.

The reply to this argument is that some commentators, e.g., Woods et al., use the notion of individuation differently in certain special cases, e.g., Aristotelian metaphysics. Their justification is precisely that the nature of the case is such that it warrants a different use of "individuation"; for example, when Aristotle speaks of individuating things, he sometimes means picking out a class of things from other things.

It is not clear what can be gained by this dispute, but it would appear that it rests upon a confusion between the following two claims:

(1) The species form is the principle of individuation.

and

(2) The possession of the species form in bits of matter is a necessary condition for the application of the principle of individuation.

(1) and (2) are logically independent, for while (1) is false, (2) is true. We repeat that matter is the principle of individuation; but

it is the species form which makes it possible for matter to be the principle of individuation.

It should be noted that "individuation" is not being equivocated in (1) and (2). In both cases "individuation" means that principle by which we can mark out numerically distinct individuals of a certain kind. The question is, how does the species form fit into the schema of individuation. Aristotle seems to hold that it is the species form which makes it possible for the principle of individuation to be used at all. It remains to be seen whether Woods concurs with Aristotle on this point.

In order to answer this last question we shall consider those arguments which are based upon Woods' article.

Textual arguments.

> It is only in virtue of possessing the form man that bits of matter which constitute men are marked off from one another (237).

The above passage asserts that the possession of the species form man in pieces of matter is a necessary condition for distinguishing one man from another man. If this is correct, then the above passage supports proposition (2), which Aristotle holds. Furthermore, the passage would also support the second interpretation of Woods' argument.

> To speak of a plurality of objects, I need some means of marking off each member of the set from other things; I do this, according to Aristotle, by recognizing occurrences of certain form in matter (237).

The above passage appears to support either the first or the second interpretation. The expressions "a plurality of objects" and "other things" could mean either (a) numerically distinct objects or

(b) a class of objects. If (a) is operative in the above passage, then Woods' claim is false since we distinguish one individual from another individual by its matter.

But it would seem that (b) is operative in the above passage, for Woods speaks of marking off the members of "the set" from other things. By "other things" he then must mean other sets of things. If this is correct, then Woods' claim is true, for it is the species form which picks out a class of individuals from its complementary class.

> I must already regard things as possessing the form before I can think of objects as a genuine plurality.

The claim here is that in order for one to have recognized a certain class of individuals there must be a predicate which truly applies to each member of that class. It is the species form which supplies us with a way of picking out a class of individuals. A bit later Woods argues that the genus cannot uniquely pick out a class of individuals from other classes of individuals since the genus is universally predicable.

Note that we have a shift of positions. Woods seems to be holding two distinct but not necessarily incompatible propositions:

> (3) If we can numerically distinguish individuals, then there must be some predicate P which uniquely picks out a particular class of individuals

and

> (4) If we can distinguish with some predicate P a class of individuals from its complementary class, then P uniquely picks out a class of individuals and P is not universally predicable.[6]

It should also be noted that (3) and (4) do not entail what Woods wants to hold, namely:

> (5) If we can numerically distinguish individuals, then there must be some predicate P which uniquely picks out a class of individuals and P is not universally predicable.

To get (5) we need a premise which asserts that, for some predicate P to uniquely pick out a particular class of individuals it is necessary that we can distinguish with some predicate P a class of individuals from its complementary class. Since this premise is implicit in Woods' thesis, we can see how Woods moves from (3) and (4) to (5).[7]

It would appear that, on the basis of Woods' article, the second interpretation is a more plausible interpretation of Woods' argument.

In Chapter IV, we will have more to say about Woods' thesis. Specifically, we hope to show that his thesis is correct. But our argument will not depend upon a premise which asserts that the species form individuates a class of individuals from its complementary class.

6. Summation.

In this chapter we examined Woods' thesis that for Aristotle anything which is universally predicable is not substance. In section 1 we presented Woods' interpretation of Aristotle's dilemma and in section 2 stated his solution: that while some universals are substance, i.e., the species form, other universals are not substance, i.e., the genus. The criterion by which non-substance universals can be distinguished from substance universals is universal predication. The former lot is composed of universals which are predicated universally

of many things, whereas the second lot is composed of universals which are not universally predicable. In section 3 we presented an interpretation of Woods' argument for his thesis which entailed certain views which are rejected by Aristotle. In section 4 we presented a second interpretation of Woods' argument which we considered sound. In section 5 we argued that on the basis of the article the second interpretation is a more accurate and plausible statement of Woods' argument than the first.

FOOTNOTES TO CHAPTER I

[1]All references to Woods' article will be made within the body of this chapter. The same procedure will be followed in the subsequent chapters.

[2]This inference assumes that the semantics for essential identity can be captured within the semantics of identity; that is, the validity of this inference rests upon the assumption that the conditions, under which "a=b" is true, are necessary and, perhaps, sufficient for "$\emptyset$ is essentially the same as $\not\emptyset$" to be true--where $\emptyset$ ranges over names of individuals (or species) and $\not\emptyset$ ranges over names of species (or genus, or differentiae.)

This assumption is at best a questionable one. It has been taken to task by Professor Francis Jeffry Pelletier in his "Aristotle on Things not Identical with their Essences," read at Pacific APA meetings, April, 1971.

[3]In 1b10 Aristotle says that "man is predicated of the individual man." In 2a19 he says that the name of man is also predicated of the individual man in <u>said of predication</u> "since you will be predicating man of the individual man." Finally in 17a38 Aristotle says that a universal is "that which is by its nature predicated of a number of things. . . man, for instance, is a universal."

[4]It might be said that this objection does not damage Woods' position, for Woods could deny that, from the fact that Coriscus and Callias are of the species man, it follows that man is predicated universally of Coriscus and Callias. On Woods' view, what should follow is that man is truly predicated of Coriscus and Callias.

This reply assumes that there is a difference between <u>being truly predicated of</u> and <u>being universally predicated of</u>. It also assumes that the species form is not universally predicable of its members. Both assumptions will be discussed in section 4 and in Chapter IV.

[5]Aristotle's point could be put in this way. In order to <u>count</u> Socrates as one man and Coriscus as another man, we need some predicate by which we can say that Socrates is one and Coriscus is another one. To say that Socrates is one and Coriscus is another one is to invite the question, "What is it that Socrates is one and Coriscus is another one?" Presumably, the answer to this question will be some predicate which is (a) truly predicable of both Socrates and Coriscus, and (b) essentially identical with Socrates and Coriscus. In this case, the predicate is the species form man.

[6](4) is supported by Woods' claim that the species form "supplies us with a principle of individuation for man [not individual men]" (237).

[7]It turns out that only the species form can meet the consequents of (4) and (5). The genus from either substance or non-substance categories cannot meet the consequents of (4) and (5). The reason is that the genus is universally predicable; that is, there is no class of individuals which the genus picks out uniquely. The same point applies to the species from non-substance categories. For example, the genus animal picks out the class of horses, the class of dogs, as well as the class of men. On the other hand, the species form red could be said to pick out the class of red flowers, the class of red books, etc.

APPENDIX TO CHAPTER I

A1 By "individuation" Woods means a principle by which individuals of a certain kind can be numerically distinguished.

A2 By "universally predicable" Woods means being truly predicable of numerically different individuals of a certain kind.

(1) The species form is the principle of individuation.

(2) The possession of the species form in bits of matter is a necessary condition for the application of the principle of individuation.

(3) If we can numerically distinguish individuals, then there must be some predicate P which uniquely picks out a particular class of individuals.

(4) If we can distinguish with some predicate P a class of individuals from its complementary class, then P uniquely picks out a class of individuals and P is not universally predicable.

(5) If we can numerically distinguish individuals, then there must be some predicate P which uniquely picks out a class of individuals and P is not universally predicable.

CHAPTER II

In this chapter, we shall consider the adequacy of proposal (2) as a solution to Aristotle's dilemma. Specifically, we shall examine the thesis that Aristotle holds a doctrine of individual forms.

The body of this chapter will be divided into two sections. In the first section, we shall present the case for the doctrine of individual forms. In the second section, we shall present a critique of that doctrine.

1. A presentation of the doctrine of individual forms.

In this section, we try to show that Aristotle does hold a doctrine of individual forms. We shall consider Albritton's case for this thesis.

A preliminary point must be made. The following claims must be distinguished:

(i) To get Aristotle out of the dilemma, it is sufficient to show that he has a doctrine of individual forms.

(ii) To get Aristotle out of the dilemma, it is sufficient to show that he holds only a doctrine of individual forms.

(i) asserts that if there is a legitimate sense in which the form is said to be an individual, then this would enable one to free Aristotle from his dilemma. On the other hand, (ii) asserts that if the form is exclusively an individual, then Aristotle's dilemma can be solved. In this section, we shall try to show that Albritton opts for (i). The truth of (i) will be discussed in the second section of this chapter.

The doctrine of individual forms is put in this way by Albritton:

> A particular material substance not only shares with others of its species a universal form, but it also has a particular form of its own, i.e., an instance of that universal form which is not the form of any other thing (699).

From the above quotations, we can infer that Albritton holds the following propositions to be true:[1]

(1) The form of a material substance is its individual form

and

(2) The individual form is peculiar to that which has it, i.e., the individual form of a thing cannot be the form of any other thing.

There are certain plausibility arguments which might be given to support propositions (1) and (2). We shall offer a few of these arguments. Let us begin with proposition (1).

1.1 Two plausibility arguments for proposition (1).

The first plausibility argument for proposition (1) is as follows. Whenever Aristotle speaks of the substance of a thing, he could be taken to mean either one of two things: the species form of a thing or the formal cause of a thing.

In Metaphysics 17 1041b6-9, Aristotle identifies the substance of a thing with the formal cause:

> Therefore what we seek is the casue, i.e., the form [formal cause], by reason of which the matter is some definite thing, and this is the substance of the thing. (Brackets added.)

In De. Part. An. 644a24, he speaks of the form of a thing as its specific form:

> . . . but in as much as these individuals [Socrates and Coriscus] possess one common specific form it will suffice to state the universal attributes of the species, that is, the attributes common to all its individuals . . . (Brackets and emphasis added.)

Both cases are covered by Aristotle's notion of the essence of a thing which he claims is substance (1032b1, 1041a9, 27.)

The difference between these two senses of "the substance of a thing" could be put in the following way. First. It is the species form which allows us to say that Callias and Coriscus are one in substance with each other, for Callias and Coriscus are of the same species. On the other hand, if by "the substance of a thing" Aristotle means the formal cause of a thing, then we cannot say that Callias and Coriscus are one in substance with each other. The argument for this last claim will be presented in our discussion of proposition (2). Second. The formal cause exists as a part (or as an element) of the individual which has it. The species form does not exist as a part of that which has it.

There are several passages which Albritton cites as evidence for these differences. For example, the following passages are designed to show that the form of a thing is the formal cause which exists as a part of that individual:

> Now in some cases the this does not exist apart from the composite substance, e.g. the form of [a] house does not so exist apart [from (a) house] (1070a12-15; my brackets.)

> . . . the cause of man is (1) the elements in man (viz. fire and earth as matter, and the peculiar form.) (1071a13; my emphasis.)

> The proximate principle of particulars is the particular . . . and (the proximate causes and elements) of things in the same species are different, not formally, but in that those of distinct particular things are distinct--for example, your matter and form and moving cause and mine-though the same in their universal formula (1071a-20-29.)

It would appear that from these passages one can make a case for the claim that Aristotle holds the form to be an individual.[2]

Another plausibility argument is this. It might be argued that Aristotle does hold a doctrine of individual forms since he is reacting against the Platonic view that two things can have the same formal cause. Consider the following passages which express the Platonic view:

Soc.: I cannot understand these other ingenious theories of causation. If someone tells me that the reason why a given object is beautiful is that it has a gorgeous color or shape or any other such attribute, I disregard all these other explanations . . . I cling simply . . . to the explanation that the one thing that makes that object beautiful is the presence in it or the association with it, in whatever way the relation comes about, of absolute beauty . . . it is by beauty that beautiful things are beautiful (Phaedo 100d-e; emphasis added.)

Soc.: Then, said I, if you call a thing by the same name whether it is big or little, is it unlike in the way in which it is called the same or like?

Glau.: Yes, like.

Soc.: Then a just man too will not differ at all from a just city in respect of the very [same] form of justice, but will be like it (Republic 435a-b; bracketed expression added.)

Presumably, on Aristotle's view, Plato cannot explain why it is that these e.g., flesh and bones are Coriscus and not Callias. If Plato grants that Coriscus and Callias have numerically the same formal cause, then we have no grounds for blocking the following inference:

1) Both Coriscus and Callias are composites of matter and a formal cause.

2) Both Coriscus and Callias have the same formal cause.

Hence

3) The pieces of flesh and bones which is before us is either Coriscus or Callias.

It might be said that in virtue of not having the same pieces of flesh and bones, Coriscus and Callias are numerically different. But this reply does not get at the problem. We do not want to know whether we can numerically distinguish Coriscus from Callias, but rather, given that we can make such a distinction, we want to know the grounds by which we are able to distinguish by their matter Coriscus from Callias. Aristotle says that what allows us to make this distinction is the fact that Coriscus has his form and Callias has his own form.[3] Thus, contrary to Plato, the formal cause of a thing cannot be a universal, i.e., the formal cause is not common to many things. It is only peculiar to that which has it as one of its elements.

We have just presented two plausibility arguments for proposition (1). We shall now present a plausibility argument for proposition (2).

1.2 A plausibility argument for proposition (2).

If Aristotle holds a doctrine of individual forms and if the individual form is the formal cause of a thing, then it is easy to see how we can arrive to proposition (2). The move from proposition (1) to proposition (2) can be managed with the following example.

Let us assume that we are baking an apple pie. Let us also assume that the ingredients which are used to make up the apple pie are the parts of the pie. This last assumption seems to be a harmless one, for it is true that a part of what goes into the making of an apple pie is, e.g., a certain amount of cinnamon, etc. Now on Aristotle's view, at least one of the ingredients which make up the pie is an essential ingredient; that is, there must be at least one ingredient which constitutes this mixture as being an apple pie.

Let us now assume that our neighbor is also baking an apple pie. Now, by analogy, we can say that the ingredients which are used in the making of our neighbor's pie are also the parts of that pie. It is clear, however, that the parts which make up our pie cannot be the parts which make up our neighbor's pie. But yet there is at least one ingredient which in each case constitutes the mixture as an apple pie. Hence the constitutive part of each pie is not numerically identical.[4]

The same conclusions can be drawn in the case of Callias and Coriscus. The elements which make up Callias cannot be the elements which make up Coriscus. The formal cause is the constitutive element of Coriscus. Hence, the formal cause which exists as a part in Coriscus

cannot be the formal cause which exists as a part in Callias (and vice versa.) It is in this sense that the form qua formal cause is peculiar to that which has it.

Albritton points out that Aristotle does hold proposition (2). He cites 1071a20-29 as evidence for his claim. He also cites 1070b4-9:[5]

> . . . how can all things have the same elements? For none of the elements can be the same as that which is composed of elements, e.g., b or a cannot be the same as ba. (None, therefore, of the intelligibles, e.g., being or unity, is an element; for these are predicable of each of the compounds as well.) None of the elements, then, will be either a substance or a relative term; but it must be one or other. All things, then, have not the same elements.

Another passage is 1037a5-10:

> . . . And "Socrates" or "Callias" has a double sense, that is if the soul too can be called Socrates (for by Socrates some mean the soul and some the concrete individual); but if Socrates means simply this soul and this body, the individual is composed similarly to the universal [man] (1037a5-10; my brackets.)

Albritton contends that what is asserted in 1071a20-29 and 1037a5-10 could be seen as a general theory of individual forms. He says:

> These forms, yours and mine, would seem to be your particular soul and mine . . . but there is no reason to think that only souls are forms in this sense. The statement that the causes and elements of distinct particular things are distinct is perfectly general. That its generality is deliberate appears to be confirmed by the earlier statement that formal causes, unlike pre-existent moving causes, exist contemporaneously with their effects (700).

The passage to which Albritton is referring is this:

> For when the man is healthy, then (and not before) there exists health; and the shape of the bronze sphere exists at the same time as the bronze sphere.

> (But we must examine whether any form also survives afterwards. For in some cases there is nothing to prevent this; e.g., the soul may be of this sort--not all soul but the reason; for presumably it is impossible that all soul should survive) (1070a22-28).

Albritton takes the force of 1070a22-28 to be this:

> What may plausibly be said to "exist" only while a man is healthy is not health in general, but his health. What "exists" only while the bronze sphere exists is not the shape of the sphere, but the spherical shape of that sphere (700).

It should be stressed that "exists" is to be understood in the sense of the form existing in a thing as an element. Albritton's point is that what is said to exist when a man is healthy is not health apart from any healthy man; but rather it is the health of this man.

One last point should be made. If proposition (2) is true, then the doctrine of individual forms is consistent with the version of the uniqueness condition which is presented in the Introduction. It will be recalled that in 1038b10 Aristotle says that "the substance of each thing is that which is peculiar to it, which does not belong to anything else." On Albritton's thesis, Aristotle is asserting that the substance of a thing belongs to that which has it, and that the substance of a thing does not belong to anything else, irrespective of whether it is of the same species as that which has substance.

We have presented several plausibility arguments to show that Aristotle holds a doctrine of individual forms. The task which remains is a critical assessment of the adequacy of this doctrine as a solution to Aristotle's dilemma.

2. A critical assessment of the doctrine of individual forms.

In this section, we try to show that although Aristotle holds a doctrine of individual forms, this is not sufficient to show that the dilemma is resolved. We shall present our critique by raising objections and by considering replies (if any) to these objections.

Objection 1. If proposition (2) is true, then the doctrine of individual forms is inconsistent with Aristotle's claim that two things of the same species are one in substance with each other. For example, in 1016a21, Aristotle says:

> . . . for wine is called one and so is water, in that they are indivisible in respect of form, and juices (as for instance oil and wine) and metals are called one because the ultimate subject of all of them is the same--for all these things are water or air.

In 1016b31, he says that "some things are one in respect of form," and that "what is one in form [with another thing] is not [one] in number [with another thing]" (brackets added).

Reply to Objection 1. The way out of objection (1) is to deny that the form is exclusively an individual. This is the route which Albritton takes. He says that the form of a material substance is "the particular instance of" the universal form (699). He also says that "a particular material substance . . . shares with others of its species a universal form." (Ibid). Thus, it would appear that Albritton is not claiming that Aristotle holds only the doctrine of individual forms.

Albritton admits that Aristotle holds a doctrine of universal forms. He points out, for example, that the force of "the same form,"

which occurs in 1071a12-13, suggests that particular substances are thought by Aristotle to share one and the same form.

Another example is 1070a14-15. In this passage, Aristotle speaks of the form of a house as being inseparable from particular houses and the art of house-building. Albritton notes that, according to Aristotle, it is the universal form house which is instantiated by particular houses and by the art of house-building. The art of house-building is in turn "exemplified in a particular artist by his particular knowledge of it (cf. 997b30)" (702). Albritton goes on to say that the artist's "knowledge is no less general for being his in particular" (702).[6]

Thus, Albritton's answer to objection (1) is that when Aristotle says two things of the same species are one in substance with each other, he is talking about the universal form, i.e., the species form which all members of a species share. But this does not rule out that Aristotle also holds a doctrine of individual forms.

Objection 2. There is an inconsistency in holding that the form of Socrates is peculiar to him and that it is not peculiar to him. This is a consequence of holding that both Socrates and Coriscus are one in form and that they are not one in form with each other.

Reply to Objection 2. Again, when Aristotle speaks of Socrates and Coriscus being one in form with each other, he means the universal form. But when he says that they are not one in form, he has in mind their respective formal cause. Hence, there is no inconsistency.[7]

Objection 3. Grant the soundness of the reply to objection (2). It follows that Socrates will have two forms. One form is peculiar to Socrates. The other is not peculiar to him. Now if the individual form stands to the universal form as Socrates stands to man, then either there is no need to postulate individual forms into Aristotle's ontology or the individual form of a thing is identical with the thing which has it. This objection has three stages. Let us discuss each stage of objection (3).

Stage 1. If Socrates' form stands to the species form man as Socrates stands to the species form man, then Socrates' form is a specimen of the species form man,[8] for Socrates is a specimen of the species man. But if Socrates is a specimen of the species man, then there is no point in claiming that his form is also a specimen of the same species, assuming that the relationship between Socrates' form and man is exactly the same as Socrates and man. Hence it is not necessary to postulate individual forms when we already have individuals which have the same role in Aristotle's ontology.

Stage 2. There is another alternative. We could say that the individual form is identical with that to which it belongs. This move has the virtue of accommodating certain puzzling passages in the Metaphysics. For example, in Metaphysics 1022a24, Aristotle says that Callius is the what-it-is-to-be of Callias. The expression "the what-it-is-to-be" is used to indicate the essence of a thing. One would have thought that man is the what-it-is-to-be of Callias.[9] Now if the essence of a thing is its form, then the only way that Aristotle could

claim that the essence of Callias is Callias is by assuming that Callias is identical with his form.

Consider book 2 chapter 6. Aristotle says that per se unities, e.g., a man, are essentially identical with their essences. If we take the essence of a per se unity to be a universal, then we would be hard pressed to explain the identity between a universal and a particular. But if the essence of a per se individual is its individual form, then the identity relation is not counterintuitive. We can also avoid the problem of claiming that Coriscus and Callius are numerically identical, for although Coriscus and Callius are numerically identical with their respective forms, the form of Coriscus and the form of Callius are numerically distinct. Hence we cannot infer that Callius and Coriscus are numerically identical.[10]

Stage 3. Let us grant that the second alternative is not only desirable but also plausible. It seems, however, that the second alternative is opened to an infinite regress. If the second alternative is correct, then there is nothing to prevent one from asking what the form is of Socrates' form, for to ask this question is in effect to ask what the form of Socrates is since Socrates and his form are numerically identical. Furthermore, we can ask what the form is of Socrates' form since we can sensibly ask that question with respect to Socrates. If the individual form is cited as the answer to our original question, then we can ask what the form is of this second individual form, for the second individual form is numerically identical with Socrates' form which, in turn, is identical with Socrates. Thus, the second individual

form (Socrates' $form_2$) is identical with Socrates. If this is true, then we can ask what the form is of Socrates' $form_2$, for this question is equivalent to asking what the form is of Socrates. A third individual form is cited as the answer. The reason is that the form of Socrates is an individual form. Hence, the form of Socrates' $form_2$ is an individual form. The process is then repeated ad infinitum.

To prevent the regress, the following assumption must be denied:

(3) The form of Socrates is numerically identical with Socrates. But if we deny (3), then we are back to the problem of postulating unnecessary entities, i.e., individual forms which have the same ontological status as the things which have them, into Aristotle's ontology.

We conclude that if the individual form stands to the universal form as Socrates stands to man, then either there is no need to postulate individual forms into Aristotle's ontology, or if the individual form is numerically identical with that to which it belongs, then an infinite regress will arise.

Albritton has the option of denying that the individual form stands to the universal form as Socrates stands to man. But if he chooses to take this route, then he owes us some account of just what the relationship is between the individual form and the universal form. It would appear that, on the basis of what he says, he holds the two relationships to be analogous in all respects.

3. Summation.

In this chapter, we examined the adequacy of proposal (2) as a solution to Aristotle's dilemma. Specifically, we examined Albritton's

contention that Aristotle holds a doctrine of individual forms. In the first section, we offered several plausibility arguments on behalf of Albritton's thesis. Our first argument was that by "the substance of a thing" Aristotle sometimes means the formal cause of a thing. We argued that if this is what Aristotle means in certain contexts, then a case can be made for Albritton's thesis, since no two things could ever have numerically the same formal cause. Thus, under this interpretation, the substance of a thing is peculiar to that which has it. This last claim is supported by certain passages in Z, 13 and book Lambda. Our second argument was that the doctrine of individual forms could be seen as a reaction to Plato. Plato claims that two things could have numerically the same formal cause. If this is true, then Plato cannot give an account of why a certain collection of material is one individual and not another individual (if both individuals have the same formal cause.) Aristotle's answer is that it is the individual's form which enables us to make the distinction. In the final section, we argued that Albritton's thesis is not an adequate solution to Aristotle's dilemma, for it has its own problem: either there is no need to postulate individual forms which are intended to have the same ontological status as the things which have them, or an infinite regress will ensue, if the individual form is identical with that which has it.

FOOTNOTES TO CHAPTER II

[1]There are at least two other propositions which Albritton holds to be true:

(3) The individual form is an instance of the universal form, i.e., the species form.

(4) The universal form is shared by numerically distinct material substances.

I omitted (3) and (4) from the discussion in section (1). The reason is that (3) and (4) are relevant to our critical assessment of the doctrine of individual forms.

[2]Another revealing passage is Z 1033a28-33b3:

> . . . just as we do not make the substratum (the brass), so we do not make the sphere, except incidentally, because the brazen sphere is a sphere and we make the former.

Aristotle is claiming that the form of a thing is not something produced <u>apart</u> from the production of that of which it is the form. This suggests that the form is an <u>inseparable part</u> of that of which it is the form.

[3]This is at least what Albritton would have Aristotle as holding. The best piece of evidence which can be marshalled in support of Albritton's claim is 1071a26:

> the causes of different individuals are different, your matter and form and moving cause being different from mine.

But if Aristotle is correct, then the form of e.g., Coriscus is not sufficient to be cited as an answer to the question "Why are these flesh and bones Coriscus and not Callias?" On the basis of 1071a26, it would appear that the proper answer is that these flesh and bones possess not only Coriscus' form but also Coriscus' efficient cause. The point is that what makes these bits of material this particular individual and not that individual is a combination of several things, namely: the individual's formal cause, his efficient cause, and (if I read Aristotle correctly) his matter.

[4]This analogy has a defect. It might be put in this way. We must distinguish between (a) what makes this an apple pie and not a mixture of ingredients; and (b) what makes this mixture of ingredients our apple pie and not another person's apple pie. The former is the formal cause of the apple pie (1041b3-6). The latter is the efficient cause of the pie. That is, it is because we made this apple pie that constitutes this mixture of ingredients as being our apple pie.

The case is different with reference to Callias and Coriscus. What makes these flesh and bones Coriscus (and not just a man) and not Callias is Coriscus' form. It is not because they have different efficient causes. We can imagine that Coriscus and Callias are identical twins who have the same set of parents, i.e., they have the same efficient cause. Presumably, we could still ask in this case what constitutes this collection of flesh and bones Coriscus and not Callias. Albritton would say that it is Coriscus' form that allows us to say that this collection of flesh and bones is Coriscus and not Callias.

Although I recognize the disanalogy, my point is to show that if the form of a thing is its formal cause, then no two things can be one in form with each other. I think that my example of the apple pie succeeds in showing this.

[5]Unfortunately, 1070b4-9 is not clear. It states that everything cannot have the same elements. But the argument which is given in 1070b4-9 is for a different conclusion, namely: no one element of a thing is identical with the sum of the thing's elements. It could be that Aristotle is not giving an argument at all; but rather he is stating two different theses.

[6]It is interesting to note that Albritton's justification for the universality of one's knowledge of house-building applies equally to those cases which he takes to be individual forms, e.g., your health, your soul, etc.

[7]Albritton says that there is no inconsistency in maintaining a doctrine of individual forms and a doctrine of universal forms. He claims that the particular form stands to the universal form as the concrete individual stands to its species. His example is this: "the species is sphere and its form the universal, sphericity: the thing is a sphere, and its particular form a sphericity, namely its sphericity" (701).

It is not clear that Albritton has shown what his example presupposes, namely: there is an individual counterpart to the spherical object. A different conclusion could also be drawn from the same example. There are only universal forms and particular instantiations of these universal forms. But to assert that there are particular

instantiations of a universal form is not to assert (or imply) that there are individual forms. To put the point another way: the particular, in Aristotle's example, is not a sphericity, but rather it is this spherical object which instantiates the universal sphericity.

Albritton could reply that my objection is sound only if he claimed that for Aristotle there are only individual forms. But we have already seen that this is not Albritton's position.

My rejoinder is that Albritton is not clear what Albritton takes to be a universal form. He sometimes speaks of the universal form as the form of the species. But in other places he takes the universal form to be the species itself. Once this problem has been cleared away, then we can assess the merit of Albritton's example.

[8]This statement is true only if we treat "is a specimen of" as a synonym for "is an instance of." Albritton says that the individual form is an instance of the universal form. I suggest that our treating the two expressions as synonyms is consistent with Albritton's views. If this is not the case, then Albritton owes us an account of what he means by "is an instance of."

[9]Christopher Kirwan expresses the same reservation in his commentary on 1022a24:

> Even if Aristotle is right to cite the name "Callias" itself as such a predicate (a27), it is suprising that he does not cite "man", which in his opinion gives a true, and at the same time non-trivial, answer to the question "what is it to be Callias?" (168).

[10]I am assuming that Albritton would have no qualms about treating identity in Z, 6 in terms of the semantics for "=". The reason is that the relata of the identity relation in Z, 6 will be individuals. If my assumption is correct, then the following argument would be sound on Albritton's view:

1) Coriscus' form = Coriscus.

2) Callias' form = Callias.

3) Coriscus' form ≠ Callias' form.

Hence

4) Coriscus ≠ Callias.

APPENDIX TO CHAPTER II

(i) To get Aristotle out of the dilemma, it is sufficient to show that he has a doctrine of individual forms.

(ii) To get Aristotle out of the dilemma, it is sufficient to show that he holds only a doctrine of individual forms.

(1) The form of a material substance is its individual form.

(2) The individual form is peculiar to that which has it, i.e., the individual form of a thing cannot be the form of any other thing.

CHAPTER III

The aim of this chapter is to examine the adequacy of proposal (3). We shall consider the thesis that because "substance" is an ambiguous expression in Aristotle's writings, the sense in which substance is said not to be a universal is different from the sense in which substance is said to be the form.

The chapter will be divided into four parts. First. We shall present the case for the ambiguity of "substance." This presentation will consist of two sections: (a) syntactical considerations and (b) semantic considerations for the ambiguity of "substance." Second. We shall present James H. Lesher's criticisms of the view that "substance" is ambiguous. Lesher argues that although "substance" applies to several different kinds of things, the expression is unambiguous. Third. We shall assess the merits of Lesher's argument. We shall try to show that Lesher has failed to show that the expression is unambiguous. Fourth. We shall argue that although it is not the case that "substance" is unambiguous, it does not follow that the expression occurs ambiguously in both T1 and T3. Indeed, we shall try to show that it occurs unambiguously in T1 and T3.

1. The case for the ambiguity of "substance."

We intend to show that the ambiguity of "substance" can be presented in either one of two ways. First. The ambiguity can be determined on syntactic grounds. It could be shown that, depending

upon its syntax, "substance" will have several distinct senses. Specifically, the sense of "substance" which is operative as an absolute term is distinct from the sense which is operative in the genitive. We shall argue that as an absolute term "substance" means the material object; whereas, as a dependent genitive, it means the essence of a thing.

Second. The ambiguity can also be established on semantic grounds. The following semantic requirements for demonstrating the ambiguity must be fulfilled: (1) a presentation of the conditions which govern the application of any substance expression must be given; and (2) it must be shown that at least two different kinds of things are the applicants of any substance expression. If conditions (1) and (2) can be fulfilled, then we will have established the ambiguity of "substance" on semantic grounds.

Let us now discuss the syntactic considerations.

1.1 Syntactic considerations for the ambiguity of "substance."

D.R. Cousin claims that the ambiguity of "substance" is rooted in two basic syntactical constructions:[1] the absolute and the dependent genitive. He says:

> There is, however, a distinction . . . this is the distinction between "substance" as an absolute term, exemplified in the question "Is this a substance, or another kind of thing?" and "the substance of," a relative term, intelligible only in connection with a dependent genitive and exemplified in the question "What is the substance of this?" (319-20).

Presumably, as an absolute term, "substance" signifies a material object. The reason is that the citation of a material object is the

proper answer to a "What is this?" question. The assumption here is that the "What is this?" question signals, upon its completion, the absolute sense of "substance" as its proper answer. The situation is, then, one in which some thing is set before us and we are asked to say what that is.[2] The answers which are appropriate to this kind of question are these: a man, a horse, a house, etc.

Cousin also notes the relative sense of "substance." This sense is characterized by the operation of asking a "What is the substance of _____?" question--where a definite singular term, e.g. "this man," or a general term, e.g. "man," replaces the blank.[3] The answer to any question of this form is said to reveal the essence of what is indicated by the definite singular term (or general term.)

A.R. Lacey points out that "substance" as a genitive term cannot occur in the plural form.[4] On the other hand, Aristotle sometimes uses the plural form when he speaks of substance in the absolute sense. Lacey also notes that, while as a genitive term "substance" cannot take an indefinite article in English, it can so take it as an absolute term.

The significance of Lacey's insights could be put in this way. (1). The locutions "a substance" and "some substance" are grammatically proper in the absolute sense of "substance." On the other hand, it is grammatically incorrect to use "a substance" or "some substance" in the genitive sense of "substance," for "_____ substance of _____" will always take the definite article as its replacement for the first blank. If this is correct, then we have some syntactic grounds for asserting the ambiguity of "substance."

(2). If we can speak of a plurality of substances, then this idiom is grammatically improper in the genitive construction of "substance." Aristotle rejects the view that a thing could actually have more than one substance. But his rejection is not based on any grammatical considerations.[5] Nonetheless, we have more grounds for the ambiguity of "substance." The reason is that while we cannot use the plural in the genitive it can be so used in the absolute; that is, we can speak of many individual substances.

It is also important to note that Aristotle inherits both senses from Plato. In discussing that which is stable and immutable, Plato uses the absolute sense of "substance" (Sophist, 232c, Timaeus 29c.)[6] This feature re-appears in Aristotle's discussion of primary substance. He says that substance is that which remains one and the same while it receives contrary accidents at different time intervals (4a10). He also says that primary substance does not admit of degrees, e.g. something cannot be more or less of a man than itself or any other individual man (3b33).

Plato introduces the genitive sense of "substance" in his works. For example, in the Euthyphro 11a, Plato uses "substance" to mean the essence of a thing.[7] In this context, Plato takes the essence of a thing to be different from a thing's mode, i.e., those properties which differentiate two things which are specifically the same. This use of "substance" is also evident in the Phaedo 65d and in the Meno 72b.[8] In these two works, Plato uses "substance" to mean the real nature of a thing, or, sometimes, the possession of a nature.

It is reasonable to assume that Aristotle has at his disposal the absolute and the genitive senses of "substance" which he inherited from his predecessors, most notably, Plato. If our assumption is correct, then it would appear that prior to Aristotle's writings the absolute and genitive senses of "substance" have already been embedded Greek philosophy.

We conclude, then, that there are syntactic as well as historic grounds for asserting the ambiguity of "substance."

We shall now discuss the semantic considerations.

1.2 Semantic considerations for the ambiguity of "substance."

A few preliminary remarks should be made. (1). In what follows, we shall present three sets of conditions for the application of any substance expression.[9] Two of the three sets are comprised of two semantical rules. It will be shown that at least two different kinds of things qualify as applicants for any substance expression. If we are successful in establishing this point, then we will have shown that any substance expression can apply to at least two different sorts of things. (Let $\emptyset$ range over substance expressions.)

(2). The following sets of conditions are originally presented by Aristotle in the material mode. In this section, we shall formulate them in the formal mode. In so doing, Aristotle's conditions for substantiality will be construed as semantic rules, i.e., rules which govern the applicability of any substance expression in some domain of discourse.

The first set of conditions is the rule for <u>non-reciprocal predication</u>. It is this: (a) what is indicated by some expression ⌜E⌝ is a subject of predication, and (b) what is indicated by ⌜E⌝ cannot be truly predicated of any subject if (c) ⌜E⌝ is a substance expression.[10]

The rule for non-reciprocal predication is introduced in Aristotle's early works. For example, in the <u>Categories</u> 5, 2a10, Aristotle says that "substance, in the truest and primary and most definite sense of the word is that which is neither predicable of a subject nor present in a subject," but of which "everything else is either predicated or in it."

This rule also appears in the <u>Prior Analytics</u>. Consider, for example, the following passage:

> Some things, such as Callias or any sensible particular, are not predicable of anything universally, while other things are predicable of them (43a25).

Let us, then, formulate the rule for non-reciprocal predication in this way:

> <u>SR1</u>. If ⌜Ø⌝ is a substance expression then
> (a) what is indicated by ⌜Ø⌝ is a subject of predication, and
> (b) what is indicated by ⌜Ø⌝ cannot be truly predicated of anything.

Presumably, only <u>per se</u> individuals meet the conditions expressed in the definiens of <u>SR1</u>. For Aristotle says that primary substances are predicated non-reciprocally. If this is correct, then we could infer, with a few additional steps, that "substance" is unambiguous.

But it is false that only <u>per se</u> individuals are predicated non-reciprocally. The reason is that condition (b) could be taken

to mean either

(b') What is indicated by ⌜Ø⌝ cannot be truly predicated of any thing of any kind

or

(b") What is indicated by ⌜Ø⌝ cannot be truly predicated of any thing of a certain kind

or

(b"') What is indicated by ⌜Ø⌝ cannot be truly predicated of more than one kind of thing.

If condition (b) is to be understood as (b'), then any substance expression will indicate only *per se* individuals, for if what is indicated by ⌜Ø⌝ cannot be truly predicated of any thing of any kind then it follows that what is indicated by ⌜Ø⌝ is a non-predicable.[11] Furthermore, anything which is a non-predicable is an individual. Since ⌜Ø⌝ will indicate only substance, then it follows that only *per se* individuals are indicated by substance expressions.

But if condition (b) is to be taken to mean either (b") or (b"'), then it is false that a substance expression will indicate only *per se* individuals. The species form of a *per se* individual meets either (b") or (b"'). Man, for example, is not truly predicable of any colored thing. Man is also truly predicable of exactly one kind of thing, namely, individual men. Furthermore, the species form of a *per se* individual is a subject of predication. For example, animal is truly predicable of man; and color is also truly predicable of man. Hence the species form fulfills condition (a) of *SR1*.

To put the point another way: *per se* individuals are the only kinds of things which are indicated by substance expressions, *only if*

non-reciprocal predication is a unique feature of *per se* individuals. This feature is, however, not unique. For the species form of a *per se* individual is also predicated non-reciprocally. Consider, for example, the following passage:

> But as primary substances stand to other things, so the species stands to genus: the species is a subject for the genus (for the genera are predicated of the species but the species are not predicated reciprocally of the genera) (2b20).

It would appear, then, that both *per se* individuals and their species form have in common the characteristic of non-reciprocal predication. Furthermore, if condition (b) has the force of either (b") or (b"'), then only the species form of *per se* individuals can meet the conditions expressed in the definiens of *SR1*.

The obvious reply is that, in the *Categories*, Aristotle intended condition (b) to have the force of (b'). If this is indeed Aristotle's intention, then all substance expressions would for Aristotle indicate only individual substances.

Although this reply is correct, it should be stressed that all that follows is that in Aristotle's *early* works the individual substance is taken to be the proper claimant to the title of "substance." It does not follow, however, that this view is also held in his *later* works. Indeed, in *Metaphysics* Δ 8, we find an analogue to *SR1*. Aristotle says:

> It follows that substance is spoken of in two ways. Both (a) the last subject, which is never predicated of *anything else* . . . (1017b23).

The above passage does not assert that substance is not truly predicable of any kind of thing, and that, therefore, substance is a

non-predicable. It asserts that substance is not truly predicable of anything that is essentially different from it.[12] Hence substance is a predicable; but it is not truly predicable of things of more than one kind.

We shall formulate the analogue to SR1 in this way:

SR1'. If ⌜Ø⌝ is a substance expression then
(a) what is indicated by ⌜Ø⌝ is a subject of predication, and is non-predicable if
(b) what is indicated by ⌜Ø⌝ is not truly predicable of anything else.

By "last subject" Aristotle could mean that which on the specimen-species-genus model is not truly predicable of anything else. We can rule out the genus since it is truly predicable of more than one kind of thing, namely, different species and their respective specimen. But it is not clear that we can also rule out the specimen.[13] It could be argued that the specimen is not truly predicable of anything else; that is, the specimen is not truly predicable of anything which is numerically distinct from it. Thus, the specimen is truly predicable of something, namely, itself. If it is replied that the force of "Ø is not predicable of anything else" is not that Ø is truly predicable of only of itself, but rather that Ø is not truly predicable of anything that is essentially different from Ø, then the reply simply begs the question.

One last point should be made. SR1' might be taken to mean that what is indicated by ⌜Ø⌝ is the species form (in all occurrences of ⌜Ø⌝ .) But this is not true. Consider the expression "man." In 3b10, Aristotle says that we might take "man" to always be indicating a primary substance. He points out that "man" also indicates a "certain

qualification," i.e., a secondary substance. The difference turns on the grammatical position that "man" occupies in some given sentence. If "man" occupies the subject position (preceded by an indefinite article or demonstrative) in some sentence, then the expression indicates a primary substance. If it occupies the predicative position of some sentence, then the expression indicates a secondary substance, i.e., a species. Thus, if SR1' implies that in any given sentential context, a substance expression will indicate the species form, then SR1' is false.

We may conclude that, in accordance with SR1', either the specimen, i.e., a per se individual, or the species form is indicated by a substance expression, for both fulfill conditions (a) and (b) (in some given interpretation of "Ø is not predicable of anything else") of SR1'.

The second set of conditions is the condition of thisness. This rule asserts: if what is indicated by an expression ⌜E⌝ is a this, then by definition ⌜E⌝ is a substance expression. In 1017b23, Aristotle claims that substance is a this. Thus our second condition can be formulated as:

SR2. If ⌜Ø⌝ is a substance expression then
(a) what is indicated by ⌜Ø⌝ is a this.

Now, in the Categories, Aristotle speaks of primary substances as being a this. But, in the Metaphysics, he speaks of a thing's form as being a this. In fact, after he has claimed, in 1017b23, that substance is a this, Aristotle gives a thing's shape and form as examples of what he means. It would seem that, in accordance to SR2, either a per se individual or its form is indicated by a substance expression.

Finally, the third set of rules is the rule of <u>self-dependency</u>. This rule states: if what is indicated by an expression ⌜E⌝ exists in its own right, then, by definition, ⌜E⌝ is a substance expression. Consider the following passage:

> . . . (a thing is) in its own right what it is to be each thing, as for instance Callias is in his own right Callias, and what it is to be Callias (1022a25-26).

Callias is what he is in virtue of being himself. Now man is what Callias is, for what it is to be Callias is to be a man. On the other hand, if Callias is a bachelor, then he is a bachelor in virtue of being something different from what it is to be Callias, namely, an unmarried man. The implication is that Callias would still be what he is, i.e. a man, even if he ceased being a bachelor. But it is false that Callias would still be what he is, if he ceased to exist as a man.

The rule of self-dependence may be put in this way:

<u>SR3</u>. If ⌜Ø⌝ is a substance expression then
(a) what is indicated by ⌜Ø⌝ exists in virtue of not being something different from what it is to be itself.

Aristotle gives a primary substance, i.e. Callias, as an example of something that meets condition (a). But he also presents an analogue to <u>SR3</u>, such that only the form of a <u>per se</u> individual can qualify as the applicant of a substance expression. In the <u>Posterior Analytics</u>, Aristotle makes the following claim:

> Further that is essential which is not predicated of a subject other than itself: e.g. "the walking (thing)" walks and is white in virtue of being something else besides; whereas, substance, in the sense of whatever signifies a "this somewhat," is not what it is in virtue of being something else besides (73b5-9).

In the above passage, Aristotle states that an essential predicate is not truly predicable of any subject that is essentially different from itself. Presumably, a walking thing is not substance, since it is not a genuine subject of predication. That is, a walking thing is essentially different from that which is said to be walking, e.g. Callias. Man, however, is substance, for it is truly predicable of only things, i.e. individual men, which exist in virtue of being what they are.

Let us formulate the analogue to SR3 as:

SR3'. If ⌜Ø⌝ is a substance expression then
(a) what is indicated by ⌜Ø⌝ is not truly predicable of a subject that exists in virtue of being something different from what the subject is.

The essence of a thing fulfills condition (a) of SR3'. Condition (a) rules out, a priori, any per se individual, on the grounds that all per se individuals are non-predicables. On the other hand, it would appear that only per se individuals meet condition (a) of SR3.

We can conclude that at least two different kinds of things, i.e. per se individuals and their species form, fulfill the three sets of semantic rules. If our conclusion is correct, then we have semantic grounds for the ambiguity of "substance."

2. An exposition of Lesher's argument against the view that "substance" is ambiguous.

James H. Lesher has argued that "substance" is unambiguous. His argument for this claim rests upon a crucial distinction: (a) the activity of distinguishing different senses of "substance"; and (b) the activity of distinguishing different kinds of substance.

According to Lesher, Aristotle is concerned with the latter. Those who claim that Aristotle is doing the former fail to distinguish (a) from (b). Consider Lesher's remarks:

> . . . there is a crucial distinction to be made: is Aristotle distinguishing different senses of "ousia" or is he merely distinguishing different kinds of substance? We have ample evidence that he often does the latter; the Metaphysics slices up substances in several different ways, sensible, non-sensible, eternal, perishable, etc. (177)
>
> In Aristotle's usage, "substance" functions as an honorific term, reserved only for that which is fundamentally real; and although the candidates for the honor change, the nature of the award does not (Ibid.)

Lesher's argument is that the evidence, which is cited for the view that "substance" is ambiguous, shows at best that there are different claimants to the title of "substance." It does not follow, so Lesher argues, that "substance" has different senses. For example, 1028b35 asserts that "substance" is used in "at least four principle cases": the essence of a thing, the genus, the universal, and the subject. This passage does not entail the proposition that "substance" is ambiguous. To arrive at this conclusion, one needs a premise which asserts that "substance," when used to denote a material object, has a distinct sense from that in which it is used to denote the essence of a thing. But such a premise would, on Lesher's view, beg the issue, for what is required is some textual evidence which explicitly shows that "substance" is ambiguous.

Lesher also points out that in Z, 2, Aristotle makes the following claims:

(1) It is thought that substance is a natural body.

(2) It is thought that substance is the boundary of a body.

Aristotle is presenting two views, which were held by some philosophers, of what sorts of things were to count as substance. Now neither (1) nor (2) show that Aristotle believed "substance" to be ambiguous. They instead show that he is aware of some philosophical views of substance.

The same point could be made with reference to 1069a30-35. Aristotle asserts that for some philosophers there are three kinds of substance: that which is sensible and perishable; that which is sensible and eternal; and that which is non-sensible and immutable. It would appear that Aristotle's assertion cannot be taken to mean that there are three different senses of "substance," but rather that there are three different kinds of substance.

In several footnotes, Lesher tries to show that there is textual evidence to show that "substance" is unambiguous. Let us consider these passages.

Met. Z, 1028a10. Aristotle says that "while 'is' has the various senses distinguished in Delta 7, what 'is' in the primary sense is substance." Lesher takes this passage to show that "substance" has only one meaning: what a thing is.

Met. Z, 1003a33. "Being has many meanings, but these are related to one thing, not merely equivocal (cf. the meanings of 'health' and 'medical,') they are all related to substance, and therefore are

dealt with by one science. Meanings related to some one thing are in a sense univocal, and therefore the subject of one science."

From these passages, Lesher concludes that "substance" is unambiguous. The reason is that "substance" has a focal meaning:

> There are of course multiple senses of "is" or "being," but the linguistic structure of Aristotle's metaphysics is that there is one "nuclear" or "focal" sense which is that of substance. (177)

We shall now assess the adequacy of Lesher's argument.

3. An argument to show that Lesher has failed to establish the unambiguity of "substance."

It is important to get clear on what follows from Lesher's argument. What follows is that it is a mistake to identify the sense of "substance" with its referent. To be sure, some commentators have committed this error. For example, Chung-Hwan Chen says that the universal, the genus, the essence of a thing, and the subject, which are presented in Z, 3, are different senses of "substance."[14] Lesher correctly points out that these are just four different claimants to the title of "substance." But it does not follow that "substance" is ambiguous, unless it is falsely assumed that the sense of any expression is its referent.

Even if we grant Lesher's point about the distinction between the sense and reference of "substance," it does not follow that "substance" is unambiguous. It need not be contended by those who hold that "substance" is ambiguous that the sense of "substance" is its referent. Indeed, the denial of such a contention is compatible with

the view that Lesher wants to reject. Hence Lesher's argument does not cut against the claim that "substance" is ambiguous.

Furthermore, some of the passages, which Lesher cites in support of his thesis, support the contrary view. For example, in 1028a10-14, Aristotle says:

> There are several senses in which a thing may be said to be . . . for in one sense the "being" meant is "what a thing is" or a "this" and in another sense it means a quality of quantity . . . (my emphasis).

Lesher correctly points out that the primary sense of the verb "to be" is "the 'what,' which indicates the substance of the thing" (1028a15). Nonetheless, it should be pointed out that Aristotle distinguishes the primary sense from the secondary sense of "to be." But within the first lot i.e., the primary sense, Aristotle says that a thing can be said to be as either a this or the essence of a thing.

Another example is Metaphysics Δ 8. Aristotle says explicitly that "substance" has two different senses. Lesher notes this passage (1017b23) in a footnote. But he dismisses this as "obviously provisional in the light of Aristotle's subsequent argument." It is not clear, however, whether Lesher has any justification for claiming that Aristotle does not seriously hold his statement in 1017b23.

4. An argument to show that, from the fact that "substance" is ambiguous, it does not follow that "substance" occurs ambiguously in T1 and T3.

We have tried to show that "substance" is an ambiguous expression. We have also tried to show that Lesher is unsuccessful in establishing his denial of this view. In this section, we shall try to show that from the fact that "substance" is ambiguous, it does not

follow that it occurs ambiguously in T1, viz. no universal is substance, and in T3, viz. that which is substance is form.

We suggest that "substance" occurs unambiguously in T1 and T3. We propose that the sense of "substance" which is operative in T1 and T3, is the sense in which Aristotle speaks of the substance of a thing. Our argument is as follows.

(1). It will be recalled that Aristotle maintains T1 in Z, 13. In Z, 13, Aristotle presents several arguments to show that no universal could be said to be the substance of a thing.

(2). Aristotle holds that if anything is a form, then it must always be the form of some individual. He rejects the Platonic view that forms can exist, at any time, apart from any individual. Furthermore, numerous arguments are given, throughout the Metaphysics (see Z, 6, 13-16), to show that form cannot be substance if it can exist, at any time, separately from every individual. Consequently, if substance is to be the form, then substance must always be, for any time t, the substance of some individual.

If my arguments are sound, then it follows that the dilemma has not been resolved. We have shown that the two occurrences of "substance" in T1 and T3 are univocal in meaning. It follows that T1, T2, and T3 constitute an inconsistent set.

5. Summation.

In this chapter, we considered the thesis that "substance" is ambiguous. In the first section, we presented the syntactic and semantic considerations for this thesis. Specifically, we tried to show that

"substance" occurs as an absolute and relative term. We also tried to show that at least two different sorts of things fulfill some of the semantic requirements of substance expressions. In the second section, we presented James H. Lesher's criticisms of the view that "substance" is ambiguous. In the third section, we argued that Lesher's criticisms are inadequate. We tried to show that no one who holds that "substance" is ambiguous has to claim that the sense of "substance" is its referent--although this is what Lesher takes his opponent to be claiming. In the last section, we argued that although "substance" is ambiguous, it does not follow that it occurs ambiguously in T1 and T3. In so doing, we noted that Aristotle's dilemma remained unsolved.

FOOTNOTES TO CHAPTER III

[1]"Aristotle's Doctrine of Substance," Mind, XLII, (1933), pp. 319-37.

[2]If I understand Cousin correctly, the "What is this?" question is not intended to be a request for the identification of the species of a thing; but rather it is intended to be a request for the identification of the individual. Moreover, it is also a request that cannot be made with reference to anything, individual or non-individual, from the non-substance categories.

On the other hand, if "What is it?" question is taken to be, by Aristotle, a request for the identification of (a) the species of a thing; and (b) the category of which the thing is a member. Aristotle assumes, however, that the force of a "What is this (which is before you)?" is "What is it (that is before you)?". Consider what he says in the Topics I. 9:

> For when a man is set before him and he says that what is set there is "a man" or "an animal," he states its essence and signifies a substance; but when a white color is set before him and he says that what is set there before him is "white" or is "a color" he states the essence and signifies a quality . . . likewise also, in other cases, for each of these kinds predicates, if either be asserted or itself, or its genus be asserted of it, signifies an essence.

That "What is this?" and "What is it?" are two different questions can be shown by the fact that the answer to the latter does not constitute an answer to the former. That is, in saying what the species is of that which is before us, we can still raise the question of what that is whose species has just been revealed.

[3]Proper names would also be proper replacements. That is, "What is the substance of e.g. Socrates?" would be permissible on Aristotle's view.

[4]"Ousia and Form in Aristotle," p. 56. Reference to Lacey's article is presented in footnote (18) of the Introduction.

[5]Aristotle presents his rejection in Z, 13, 1039a5-14. His argument is that nothing which is actually one can be actually two. Since a per se individual is one in that it is a unity, it cannot be the case that it is, in actuality, comprised of two substances. The argument is invalid. The conclusion assumes a sense of "one," which is not operative in the premise; namely, the sense in which something is said to be numerically one, i.e. singular.

[6]In the Sophist, 232c9, Plato says:

> Whatever any general statement is made about becoming and reality . . .

Lewis Campbell translates this passage as:

> When any general statement is made respecting the world of transitional or of absolute Being (The Sophistes and Politicus of Plato, Oxford 1867, p1 65)

The Jowett translation is different:

> . . . when any universal assertion is made about generation and essence . . . (Vol. 3, p. 381).

In the Timaeus, 29c2, we find the following: "as being is to becoming, so is truth to belief."

[7]Plato says:

> Consequently, Euthyphro, it looks as if you have not given me my answer--you did not wish to explain the essence of it [holiness] . . . You merely tell an attribute of it . . . What it is, as yet you have not said (Brackets added.)

John Burnet points out that, in ordinary Attic, "substance" meant "property of." (Plato's Euthyphro, Apology of Socrates and Crito, ed. with notes, Oxford: 1967). (p. 49)

[8]By "them" I mean not only absolute tallness or health or strength, but the real nature of any given thing--what it actually is.

Burnet translates this as: "And, to sum up, I am speaking of the reality of all the rest, i.e., of what each of them really is" (Plato's Phaedo, ed. with Introduction and notes, Oxford: 1911).

In the Meno 72b, we find Socrates saying:

> Tell me, therefore, Meno, concerning this very nature of bees, in respect of which they do not differ, but all agree and are alike; what say you that it is?

[9] I do not want to imply that the following sets of semantic rules are the only rules which constitute the class of substance expressions. There are, of course, other rules. For example:

If ⌜Ø⌝ is a substance expression then
(1) ⌜Ø⌝ is a sortal predicate
(a) ⌜Ø⌝ is grammatically substantival;
(b) ⌜Ø⌝ is grammatically countable;
(c) ⌜Ø⌝ is neither divisive nor collective.

I am only interested in presenting those rules which are relevant to the discussion in 1.2.

[10] The sense of "indication" will be explained in Chapter IV.

[11] By a "non-predicable," I mean that which cannot be asserted of or true of--in some formal sense of "asserted of" and "true of"--any subject of any kind. By a "predicable," I mean that which can be asserted of or is true of some subject of some kind.

My use of "predicable" and "non-predicable" is to be distinguished from Geach's use of these expressions (see: Reference and Generality, Cornell University Press, 1962, p. 23.) He interprets a predicable as an expression which "can be attached to its subject," which, in turn, is also an expression. My interpretation of a predicable will be a universal and its name; whereas a non-predicable will be interpreted as an individual and its name. Both of my interpretations are, I think, faithful to Aristotle's views of predication--this is not to imply, however, that Geach intends his interpretation to be consistent with Aristotle's theory of predication.

[12] This point will be clarified in more detail in Chapter IV.

[13] The following point will re-appear in our last chapter. It will be shown to be the most challenging objection against our central thesis in Chapter IV. We shall try to answer the objection at the proper time.

[14] "Aristotle's Concept of Primary Substance in Books Z and H of the Metaphysics," Phronesis, 1958, p. 47.

APPENDIX TO CHAPTER III

SR1. If ⌜Ø⌝ is a substance expression, then what is indicated by ⌜Ø⌝ is a subject of predication, and what is indicated by ⌜Ø⌝ cannot be truly predicated of anything.

SR1'. If ⌜Ø⌝ is a substance expression, then what is indicated by ⌜Ø⌝ is a subject of predication, and what is indicated by ⌜Ø⌝ cannot be predicated of anything else.

SR2. If ⌜Ø⌝ is a substance expression, then what is indicated by ⌜Ø⌝ is a *this*.

SR3. If ⌜Ø⌝ is a substance expression, then what is indicated by ⌜Ø⌝ exists in virtue of not being something different from what it is to be itself.

SR3'. If ⌜Ø⌝ is a substance expression, then what is indicated by ⌜Ø⌝ is not truly predicable of a subject that exists in virtue of being something different from what the subject is.

CHAPTER IV

In this chapter, we offer our solution to Aristotle's dilemma. We shall argue that T1 is false. We shall try to show that for Aristotle some universals are substance.

The body of this chapter will be divided into seven sections. In the first section, we present our main argument for the falsity of T1. In the second section, we try to show that on the basis of certain passages in the later books of the Metaphysics, Aristotle holds that substance is truly predicable of some subject. This examination is required for two reasons. Firstly, Aristotle appears to deny this view in Z, 13. Secondly, the first premise of our main argument assumes that Aristotle does in fact hold this view. In the third section, we try to show that a necessary condition for something to be substance is that it be truly predicable of every specimen of exactly one kind. We shall cite certain passages from Aristotle's later works which support our claim. In the fourth section, we present an argument to show that a sufficient condition for something to be a universal, is that it be truly predicable of every specimen of at least one kind. In the fifth section, we present another argument to the same conclusion as our main argument; that is, we argue that if something is substance, then it is a universal. In the sixth section, we consider and try to answer certain objections which might be raised against our proposal. In the final section, we offer some plausibility arguments on behalf of our proposal.

1. Statement of solution to Aristotle's dilemma.

Our solution to Aristotle's dilemma could be put in this way. When Aristotle speaks of substance as that which is not universally predicable of many things, he means that substance is that which is not truly predicable of specimen of more than one kind. This does not imply that substance is not truly predicable of numerically different specimen of a certain kind; it rather implies that substance is truly predicable of every specimen of exactly one kind.

The argument for our solution involves a controversial premise. The premise is this:

> P1. If something is substance, then it is truly predicable of every specimen of exactly one kind.

P1 is controversial in that it assumes that substance is truly predicable of some subject. But Aristotle appears to deny this assumption in Z, 13. In 1038b15, he says that "substance means that which is not predicable of a subject." Consequently, to avoid any question-begging, we must show that in fact Aristotle seriously holds substance to be truly predicable of some subject. In the following section, we hope to show that the later books of the Metaphysics suggest that our assumption is correct.

There are two more premises in our main argument:

> P2. If something is truly predicable of every specimen of at least one kind, then it is a universal

and

> P3. If something is truly predicable of every specimen of exactly one kind, then it is truly predicable of every specimen of at least one kind.

Now P3 is true. For its contraposition

P3'. If something is not truly predicable of every specimen of at least one kind, then it is not truly predicable of every specimen of exactly one kind

is true. A is truly predicable of every specimen of exactly one kind if, and only if, A is truly predicable of every specimen of at least one and at most one kind. If it is false that A is truly predicable of every specimen of at least one kind, then it is false that A is truly predicable of every specimen of at least and at most one kind. If this is true, then it is false that A is truly predicable of every specimen of exactly one kind. This is what P3' asserts. Since P3' is true, then its contraposition, i.e., P3, must be true.

In section (4), we try to show that P2 is consistent with Aristotle's view of a universal.

If P1, P2, and P3 are true, then

P4. If something is substance, then it is a universal

must be true, since P4 is entailed by P1, P2, and P3.

To show that T1 is false, we need yet another premise. It is this:

P5. There is something which is a universal and [a] substance.

Since P5 is entailed by P4 via existential importation, we can infer from P5 that some universal is substance. If it is true that some universal is substance, then this would be sufficient to show that T1 is false. We try to show in section (5) that P5 is true on the basis of certain passages in Metaphysics Z.

We shall now go on to argue for the soundness of our argument. We shall first try to show that Aristotle holds substance to be truly predicable of some subject in the Metaphysics. If we are able to establish this point, then we can go on to defend P1 in section (3).

2. Several considerations to show that Aristotle holds substance to be truly predicable of some subject in the Metaphysics.

In this section, we show that in the later books of the Metaphysics, Aristotle holds substance to be truly predicable of some subject. The following passages are taken from books Zeta, Eta, and Iota.

Let us begin with 1040b23:

> . . . for substance does not belong to anything but to itself and to that which has it, of which it is the substance.

Although Aristotle does not use the expression "predicable of" in the above passage, a case could be made to show that 1040b23 is relevant to our thesis.

The issue turns on how we are to interpret "belongs to" in 1040b23. I propose that a fair interpretation of "belongs to" is being truly predicable of. My argument for this is that Aristotle uses the expression to mean being truly predicable of in his logical works. I shall now proceed to cite several passages in which this use is evident.

In the Posterior Analytics 73b34, Aristotle describes essential attributes as what "belongs to their subject as elements in its essential nature." By "belongs to their subject as elements in its essential nature" Aristotle could mean that an essential attribute is a part of

the definition of its subject. Now an attribute which belongs to a subject as a part of the subject's definition is essentially predicable of that subject (83a24). It follows that if an attribute belongs to a subject as a part of the subject's definition, then the attribute is truly predicable of that subject.

In the Topics, book I, chapter 5, Aristotle uses "belongs to" when he first introduces certain kinds of predicates, namely, properties and accidents. Consider the following passages:

> A property is a predicate which does not indicate the essence of thing, but yet belongs to that thing alone, and is predicated convertibly of it. Thus it is a property of man to be capable of learning grammar: for if A be man, then he is capable of learning grammar, and if he is capable of learning grammar, he is a man. For no one calls anything a property which may possibly belong to something else, e.g., sleep in the case of man, even though at a certain time it may happen to belong to him alone (102a18-24; emphasis added.)

> An accident is (1) something which, though it is none of the foregoing--i.e., neither a definition nor a property nor a genus--yet belongs to the thing: (2) something which may possibly either belong or not belong to any one and the self-same thing, as (e.g.) the sitting posture may belong or not belong to some self-same thing (102b4-8; emphasis added.)

Aristotle's point is that the capacity to learn grammar belongs to man in the sense that it is truly predicable of only man and it is predicable convertibly of man. On the other hand, sitting posture belongs to, e.g., Socrates, in the sense that sitting posture is truly predicated of Socrates in virtue of the fact that he happens to be sitting.

If our comments on these passages are correct, then we have some grounds for treating "belongs to" as being truly predicable of

in 1040b23. Thus, the force of 1040b23 is that substance is not truly predicable of anything but itself and to that which has it as its substance.

It follows from our interpretation of 1040b23 that substance is truly predicable of some subject. Thus, on our interpretation, 1040b23 provides some evidence for our thesis.

Consider the following passage from Book Eta:

> . . . and as in substances that which is predicated of the matter is the actuality itself, in all other definitions also it is what most resembles full actuality. (1043a5-7)

By "the actuality itself" Aristotle means the <u>form</u> of a thing. The <u>actual</u> component of the concrete individual is contrasted with <u>potential</u> component which Aristotle identifies as matter:

> The substratum is substance, and this is in one sense the matter (and by 'matter' I mean that which, not being a <u>this actually</u>, is <u>potentially</u> a <u>this</u>.) (1042a27; emphasis added.)

> Since the substance which exists as underlying [qualitative change] and as matter is generally recognized, and this is that which exists <u>potentially</u> (1042b10; emphasis and brackets added.)

Since form and matter are the primary components of the concrete individual--accidents are the secondary components--it follows that the form is the actual component of the concrete individual.

Prior to 1043a5-7, Aristotle says that "it remains for us to say what is the substance, in the sense of the actuality, <u>of</u> sensible things" (1042b10; emphasis added.) He then proceeds to give examples of what he means by the actuality of things. Aristotle presents his examples in the following way:

> . . . some things are characterized by the mode of composition of their matter, e.g. the things formed by blending, such as honey-water; and others by being bound together, e.g., a bundle; and others by being glued together e.g., a book; and others by being nailed together, e.g., a casket . . . and others by position, e.g., a threshold and lintel; and others by time, e.g., dinner and breakfast . . . (1042b15-21.)

Note that Aristotle's examples are artifacts and other non-natural objects whose matter is constituted by their respective form. It follows from 10435-7 that form is predicated of the matter of a thing.

In Chapter III we argued that in Z, 17 the substance of a thing is its form. It appears that this view is also held in book Eta. If this is correct, then it follows that the substance of a thing is truly predicable of that which it is the substance. Hence, in book Eta, Aristotle holds that substance is truly predicable of some subject.

In 1043b28-33, Aristotle says:

> Therefore one kind of substance can be defined and formulated, i.e., the composite kind, whether it be perceptible or intelligible; but the primary parts form and matter of which this consists cannot be defined, since a definatory formula predicates something of something.

The above passage asserts that what is indicated by a definition is truly predicable of that which is defined. Presumably, what is predicated by the definition are its parts, namely, form and matter, since "one part of the definition must play the part of matter and the other that of form" (1043b34.) It follows that the form is truly predicable of that of which it is the form, i.e., the concrete individual. Thus, 1043b28-33 supports the view that substance <u>qua</u> form is truly predicable of some subject.

I propose that the passages which have just been considered show that Aristotle holds seriously the view that substance is truly predicable of some subject. We shall now go on to argue for the truth of P1.

3. An argument for the truth of P1. (Stage I)

In this section, we try to show that a necessary condition for something to be substance, is that it be truly predicable of every specimen of exactly one kind. We shall first present passages which express a characteristic which is a necessary condition for substantiality. We then offer an interpretation of these passages. Once we have presented and argued for our interpretation, we offer an argument to show that the cited passages support P1.

The argument for P1 is very complex. To aid the reader in following the course of our argument, it is necessary that we divide section (3) into several subsections.

3.1 A presentation and an interpretation of three relevant passages from the Metaphysics and the Analytics.

There are three interesting and important passages which are relevant for our defense of P1. They are as follows:

> . . . that is essential which is not predicated of a subject other than itself: e.g. "the walking thing" walks and is white in virtue of being something else besides; whereas substance, in the sense of whatever signifies a "this somewhat" is not what it is in virtue of being something else besides (73b5-8).

> It follows that "substance" has two senses: (1) the ultimate subject, which is no longer predicated of anything else, and (2) that which, being a this is also separable--and of this nature is the shape or form of each thing (101b23-25).

> . . . for substance does not belong to anything but to itself and to that which has it, of which it is the substance (1040b23-25).

We shall not attempt to give an exhaustive account of each one of the above three passages. It is sufficient to use these passages as the groundwork upon which we shall build our defense for P1. Moreover, it is important to note that while each passage is taken from a different stage in Aristotle's writings, each expresses an important characteristic of substance. It is this:

> (1) If something is substance, then it is not truly predicable of anything else.

It will be our main task in this section to give the conditions under which the consequent of (1) is true.

This task rests upon what we take the force of the consequent of (1) to be. Consequently, we shall at the outset present our interpretation.

We propose that

> (2) A is not truly predicable of anything else

is to be interpreted as

> (3) A is truly predicable of only that which is essentially the same as A.

Our interpretation assumes that it is the substance of a thing which is not truly predicated of anything else. This point must be stressed, since it might be mistaken that "A" is the name of a primary substance. For example, it is true that Coriscus, Callias, and Socrates are all essentially the same since they are all men (Met. 1016a17-24, 1018a7.) But it is false that e.g., Coriscus is truly predicated of Callias and Socrates. If (3) is to be true, then "A" must be the name

of the essence of a thing. Thus, on our interpretation, it is the essence of a thing which is truly predicated of all things which are one in essence with that of which it is the substance (1040b23.)

There is some textual evidence which supports our interpretation. For example, in book Gamma, Aristotle argues that if all the attributes of a thing are accidents, then the essence of a thing would be something other, i.e., essentially different, than what the thing is:

> And in general those who say this do away with substance and essence. For they must say that all attributes are accidents, and that there is no such thing as 'being essentially a man' or 'an animal.' For if there is to be any such thing as 'being essentially a man' this will not be 'being a not-man' or 'not being a man' . . . for there was one thing which it meant, and this was the substance of something. And denoting the substance of a thing means that the essence of the thing is nothing else. But if its being essentially a man is to be the same as either being essentially a not-man or essentially not being a man, then its essence will be something else. (1007a20-38.)

In Zeta chapter 6, it is argued that <u>per se</u> individuals are essentially identical with their essences:

> But indeed not only are a thing and its essence one, but the formula of them is also the same, as is clear even from what has been said; for it is not by accident that the essence of one, and the one, are one. (1031b-32-32a3.)

> Clearly, then, each primary and self-subsistent thing is one and the same as its essence. The sophistical objections to this position, and the question whether Socrates and to be Socrates are the same thing, are obviously answered by the same solution. (1032a5-10.)

We shall now proceed to lay out the truth-conditions for proposition (3). We hope to show that these conditions are consistent with what Aristotle says in his writings.

3.2 A formal account of proposition (3).

We propose that a necessary condition for A to be predicable of only that which is essentially the same as A, is that A be said of some subject a. It cannot be a sufficient condition that A be said of a; for some things, e.g., white, are said of some subject, e.g., the individual bit of white, but the color white is also truly predicable of that which is not essentially the same as the color white, i.e., that in which the individual white inheres. On the other hand, if it is a necessary condition that A be said of a, then no questions will be begged on what sorts of things are substance. For example, both white and man are said of some subject. White is said of the individual white. Man is said of the individual man.

Aristotle does not explicitly state that the color white is said of some subject. But a case could be made to show that he is committed to this view. In Categories 1a20, he classifies universals from the non-substance categories as things which "are both said of a subject and in a subject." The example that is given is knowledge which is "in a subject, the soul, and is also said of a subject, the individual knowledge-of-grammar." Since the color white is in a subject, i.e., a body (2a19,) and white is a universal from a non-substance category i.e., the category of Qualities, it follows by analogy that the color white is also said of some subject, i.e., the individual bit of white.

What is required is some account of said of predication. Aristotle introduces this notion of predication in Categories 2a19. He says:

> It is clear from what has been said that if something is said of a subject both its name and its definition are necessarily predicated of the subject. For example, man is said of a subject, the individual man, and the name is of course predicated (since you will be predicating man of the individual man), and also the definition of man will be predicated of the individual man (since the individual man is also a man.) Thus, both the name and the definition will be predicated.

In order to provide a characterization of said of predication, we shall introduce the following technical notions:

> A1. "X indicates x" is true, if, and only if, "x" is replaced by some grammatically substantival expression and "X" is replaced by the quotation mark name of that expression.
>
> A2. An expression E in a sentence S introduces an item I, if it is true to say that S is about I because it contains the expression E.

That Aristotle had a rough notion of the introduction of items into discourse is supported by the following passage in book Gamma chapter 4:

> Again, if 'man' has one meaning, let this be 'two-footed animal'; by having one meaning I understand this: if 'man' means X, then if A is a man X will be what 'being a man' means for him [A]. (1006a29-34, bracketed expression added.)

We shall now propose the following schema for said of predication:

> A3. For any x and for some y, x is said of y in some sentence of the form ⌜A is B⌝, if, and only if, (i) A indicates y, (ii) B introduces x, and (iii) the definition of anything B introduces is predicated truly of y.

Thus, in the sentence,

> S1. Socrates' white is white

the expression "Socrates' white" indicates the individual white in Socrates, namely, Socrates' white. The expression "white," which occupies the predicative position in S1, introduces the color white. Furthermore, the definition of what is introduced by the predicate expression "white," i.e., a color, is truly predicated of the individual white in Socrates. Thus, S1 is a case of said of predication.[1]

The same analysis is applicable to

S2. Socrates is a man.

"Socrates" indicates Socrates. The expression "a man" introduces a man and man. Moreover, the definition of a man and man, i.e., animal, is truly predicated of Socrates. Thus, S2 is also a case of said of predication.

To return to the matter at hand, we hold the following proposition to be true:

> (4) If A is truly predicated of only that which is essentially the same as A, then A is said of some subject, a.

It should be noted that (4) is not sufficient to rule out universals from the non-substance categories as things which are not truly predicable of anything else. But Aristotle rules out universals like the color white and color as substances, since they do not fulfill the antecedent of (4). This claim can be supported by the following passage:

> Of things predicated, and things that get predicated of, those which are said accidentally, either of the same thing or of one another, will not be [essentially] one, . . . nor . . . will [e.g.,] the cobbler who is (without qualification) good. (On Interpretation, 21a7, bracketed expressions added.)

The point is repeated in the Metaphysics:

> Things which are of the nature of matter, or of wholes that include matter, are not the same as their essences, nor are accidental unities like Socrates and [the] musical [thing,] for these are the same only by accident. (1037b4-8, bracketed expressions added.)

Since the white man and Socrates are the same accidentally (if it is true that Socrates is white), i.e., they are essentially different, and since the color white is truly predicable of Socrates (2a19), it follows that the color white is truly predicable of something that is essentially different from it. Hence, the color white is truly predicated of something else. The same kind of argument could also be constructed in the case of color.

If what we have said is true, and if (3) is a plausible interpretation of (2), then it follows that white and color are truly predicated of something else.

Some condition is needed which, in conjunction with the condition that is expressed in the consequent of (4), rules out any universal from any non-substance category. The required condition is that what A is said of does not inhere in some thing. Such a condition would rule out universals like white and color. For example, the color white is said of the individual bit of white. But since any individual from any non-substance category must inhere in some per se individual, it follows that the color white is said of an individual bit of white which inheres in some per se thing. It should be noted that this condition does not rule out universals (species and genera) from the category of substance as things which are not truly predicated of anything else.

Aristotle's notion of inherence is introduced in 1a20:

> Of things there are . . . some are in a subject but are not of any subject. (By 'in a subject' I mean what is in something, not as a part, and cannot exist separately from what is in.)

Now Aristotle holds in the Categories that individuals and universals from non-substance categories inhere in subjects. For example, in 1a20, he says that "the individual knowledge-of-grammar is in a subject" and that "knowledge is in a subject [the soul.]" Consequently, we need a sense of inherence which applies only to non-substance individuals. We propose the following definition:

> A4. If *a* is not truly predicable of *b*, then *a* is in *b*, if and only if, neither *a* nor *b* is truly predicable of anything and *a* is not part of *b* and *a* is inseparable from *b*.

A4 applies only to non-substance individuals since they are not truly predicable of the things in which they inhere.[2] On the other hand, non-substance universals are ruled out by A4, for they are truly predicable of the things in which they inhere (1a20 and 2a19.)

We hold, then, that the following proposition is true:

> (5) If *A* is truly predicated of only that which is essentially the same as *A*, then whatever *A* is said of does not inhere in some thing.

(5) is equivalent to

> (5') If whatever *A* is said of inheres in something, then *A* is not truly predicated of only that which is essentially the same as *A*.

(5') is true, since the color white is said of the individual bit of white which does inhere in some thing, e.g., Socrates. But white is not truly predicated of only that which is essentially the same as

white i.e., the individual white, for it is also truly predicated of Socrates. This last claim is supported by the following passage:

> But of an accidental term, e.g., the musical or the white, since it has two meanings, it is not true to say that it itself is identical with its essence; for both that to which the accidental quality belongs, and the accidental quality, are white, so that in a sense they are not; for the essence of white is not the same as the man or the white man, but it is the same as the attribute white [the individual white] (1031b22-29; brackets added.)

We have already argued in the preceding section that "belongs to" has the force of <u>being truly predicable of</u> some subject. With this in mind, we can interpret the above passage in the following way. There are two lots of things of which the color white is truly predicated. One lot is comprised of the things which are essentially the same as white, i.e., the individual white. The other lot is comprised of things which are not essentially the same as white, e.g., a man. It follows from 1031b22-29 that white is not truly predicable of <u>only</u> those things which are essentially the same as white. Hence (5') is true. Hence, (5) is also true, since (5) is logically equivalent to (5').

Thus far, we can conclude that

(6) <u>A</u> is said of some subject <u>a</u>

and

(7) Whatever <u>A</u> is said of does not inhere in something

are severally necessary for proposition (3) to be true. Since we hold that (3) is a plausible interpretation of (2) it follows that (6) and (7) are also severally necessary for proposition (2) to be true.

The question is whether (6) and (7) are jointly sufficient for (2) to be true. Our answer is that they are not sufficient. The conjunction of (6) and (7) is not sufficient for ruling out genera from the category of substance as things which are not truly predicable of anything else. For example, animal is said of Socrates and Socrates is not in something. But Aristotle denies that animal is not truly predicable of anything else. This is suggested in Z, 13. Aristotle says that nothing which is universally predicable is substance (1038b5-10). That is, nothing which is truly predicable of every specimen of more than one kind can be substance. In 1038b30, he says that no part of the definition of the species is the substance of anything. Since the genus is a part of the definition of the species (and since Aristotle also cites animal as an example), it follows that the genus is not substance. If this is true, then it follows that the genera from the category of substance are universally predicable, i.e., they are predicated of something. (I say "it follows" in that Aristotle speaks of the definition of the species from the <u>category of substance</u>, e.g., man.)

Consequently, we must add a third condition which, in conjunction with (6) and (7), is sufficient for ruling out genera from the category of substance.

3.21 <u>A condition for ruling out all genera from the category of substance as things which are not predicated of anything else</u>.

The way to meet our task is to present a feature which Aristotle says is unique to all genera from substance and non-substance categories.

The feature in question is that of being true in every instance of a subject. This notion is introduced in the Posterior Analytics, book I, 3, 73a27-32. Aristotle says:

> I call 'true in every instance' what is truly predicable of all instances--not of one to the exclusion of others--and at all times, not at this or that time only; e.g., if animal is truly predicable of every instance of man, then if it be true to say 'this is a man,' 'this is an animal' is also true, and if the one be true now the other is true now.

We shall propose the following as a definition of "being true in every instance":

(where A and B are classes)

A5. A is true in every instance of B if, and only if, for any x and for all time t, if (i) B is a proper set of A at t, then if (ii) B is truly predicable of x at t (in some sentence of the form ⌜ψ is a φ⌝ --where φ and ψ are replaced by B and some name for x), then (iii) A is truly predicable of x at t (in some sentence of the same form.)

Some comments on A5 are in order. (1). The force of "true in every instance" is truly predicable of every instance of a kind. (2). The expression "instance of" could be interpreted as either "specimen of" or "species of." Its interpretation is dependent upon the particular class-names which are given to A and B, e.g., "Living things is true in every instance (species) of animal," "Animal is true in every instance (specimen) of man," etc. (3). Condition (i) of A5 is crucial, for if B is a subset of A, then it is possible that A and B are identical. If it turns out that A and B are identical, then A5 becomes trivially true, for then any class could meet A5 (since any species is identical with itself.) But condition (i) rules out this possibility and thereby preserves the non-triviality of A5.

Presumably, the following combinations are in accordance with A5:

Let SC = substance category

NSC = non-substance category

Table A

1) (NSC) genera---(SC) genera
   Ex: Anything that is an animal is a colored thing.

2) (S) genera---(S) species
   Ex: Anything that is a man is an animal.

3) (NSC) genera---(S) species
   Ex: Anything that is a man is [a] colored [thing.]

4) (NSC) genera---(NSC) species
   Ex: Anything that is white is [a] colored [thing.]

The following combinations are not permissible:

Table B

1) (S) genera---(NSC) genera
   Ex: Anything that is [a] colored [thing] is an animal.

2) (S) species---(S) species
   Ex: Anything that is man is horse.

3) (NSC) species---(NSC) species
   Ex: Anything that is white is knowledgeable in grammar.
   Anything that is white is red.

4) (NSC) species---(S) species.
   Ex: Anything that is white is [a] man.
   Anything that has the capacity to learn grammar is [a] man.

5) (S) species---(NSC) species.
   Ex: Anything that is [a] man is [a] white [thing.]

If Tables A and B are exhaustive, then the only things which are true of every instance of a kind are genera (with the exception of case #1 in Table B.) If this is true, then we can state the condition

which rules out genera from the category of substance as things which are not truly predicable of anything else. It is this:

> (8) For any kind k, if A is true of every instance of k, then A=k.

(8) rules out genera from the category of substance. For example, animal is true of every instance of e.g., man. But it is false that the class of animals and the class of men are identical.

A counterexample to this claim is the following. If, at some time t, the only species of animal in existence is the species man, then certainly the class of animals and the class of men are identical at time t.

In order to avoid this counterexample, we shall have to reformulate (8) as:

> (8') For any kind K, and for all time t, if A is true of every instance of K at t, then A=K at t.

(8') is still not sufficient to preclude the fortuitous case in which the class of men and the class of animal were always identical. To insure against this possibility, (8') must be a necessary truth:

> (8") For any kind K, and for all time t, (1) if A is true of instance of K at t, then A=K at t, and (2) (1) is a necessary truth.

Now the species man meets proposition (8"), for it is necessarily true that if man is always true of every instance of a certain kind, then man is always identical with that kind. The truth of this claim is supported by the fact that the only kind of which man is always true of its instances and with which man is always identical is the kind man. Indeed, this is what Aristotle says in the Posterior Analytics, book I, chapter 22:

> Predicates not signifying substance which are predicated of a subject not identical with themselves or with a species of themselves are accidental or coincidental, e.g. white is coincident of man, seeing that man is not identical with white or a species of white, but rather with animal, since man is identical with a species of animal [namely, the species man.] (83a25-30, bracketed expressions added.)

3.3 Summation (I).

At this point, it would be to our advantage if we summarized what we have tried to do in the last three subsections. In section 3.1, we presented several passages which state that substance is not truly predicable of anything else. We then offered an interpretation of this statement. We proposed the following: A is truly predicable of only that which is essentially the same as A. In sections 3.2 and 3.21, we tried to lay out the conditions for the truth of "A is truly predicable of only that which is essentially the same as A." In section 3.2, we argued that if A is not truly predicable of anything else, then A is said of some subject a and that whatever A is said of does not inhere in something. We said that although said of predication and non-inherence are sufficient for ruling out universals from non-substance categories, they are not sufficient for ruling out genera from the category of substance. In section 3.21, we presented a third condition which would be sufficient to meet this task. It is the property of being true of every instance, which is presented in the Posterior Analytics, book I, 3, 73a27-32. We then offered an account of this notion. It is our contention that if something is substance and it has the property of being true of every instance of a kind, then it

must be identical with that kind. This condition has the consequence of ruling out genera from both substance and non-substance categories as candidates for substance.

If our arguments from the preceding subsections are correct, then we conclude that the following proposition is true:

> (9) A is not truly predicable of anything else if, and only if, (i) A is said of some subject, (ii) whatever A is said of does not inhere in something, and (iii) for any kind K, and for all time t, if A is true of every instance of K at t, then A=K at t, and (iii) is a necessary truth.

The reason why (9) is true is that it rules out all universals except the species from the category of substance as things which are not truly predicable of anything else.[3] This seems to be consistent with what Aristotle says in the Analytics and the Metaphysics.

If (9) is true, then we can go on to give our argument for P1.

3.4 An argument for the truth of P1. (Stage II)

> (9) entails: (10) if A is not truly predicable of anything else, then, (iii) for any kind K and for all time t, if A is true of every instance of K at t, then A and K are identical at t, and (iii) is a necessary truth.

Now if, for any kind K, A is true of every instance of K, only if A is identical with K, then A is true in every instance of A. (We shall assume the necessity of the omnitemporality in the preceding claim and throughout the following argument.) Furthermore, if A is true in every instance of A, then A is truly predicable of every instance of exactly one kind (namely, A itself.) It follows that if A is not truly predicable of anything else, then it is truly predicable of every instance of exactly one kind (namely, A itself.) Since only

the species from the category of substance are not truly predicable of anything else, then "instance of" can be interpreted as "specimen of." Thus, our conclusion is that if something is not truly predicable of anything else, then it is truly predicable of every specimen of exactly one kind.

We said in section 3.1 that if something is substance, then it is not truly predicable of anything else. It follows that if something is substance, then it is truly predicable of every specimen of exactly one kind. This last conclusion is P1. Thus, we conclude that P1 is true.

4. An argument for the truth of P2.

In this section, we want to argue that a sufficient condition for something to be a universal, is that it be truly predicable of every specimen of at least one kind. Our argument for this claim depends upon Aristotle's notion of a universal. We shall cite certain passages from Aristotle's early and later writings which express his views on the matter. A comment will be made after we have presented the following passages.

In On Interpretation, 7, 17a38, Aristotle gives this characterization of a universal:

> Now of actual things some are universal, others particular (I call universal that which is by its nature predicated of a number of things, and particular that which is not; man, for instance, is a universal, Callias is a particular.) (Emphasis added.)

In Metaphysics, 999b35-1000a1, Aristotle says:

> . . . for there is no difference of meaning between 'numerically one' and 'individual'; for this is just we mean by the individual--the numerically one, and by universal we mean that which is predicable of the individual. (Emphasis added.)

Finally, in Metaphysics 1038b11-14, he says:

> the universal is common . . . for that is said universally which naturally belongs to several things . . . the universal is predicable of some subject always. (Emphasis added.)

It would appear that there is a difference between being truly predicated of many things and being truly predicated universally of many things. We propose that the difference could be put in the form of three propositions:

> a. If A is universally predicable of many things, then it follows that A is truly predicable of every specimen of more than one kind.
>
> b. If A is truly predicable of many things, then it does not follow that A is truly predicable of every specimen of more than one kind.

and

> c. If A is universally predicable of many things, then A is truly predicable of many things but not necessarily vice versa.

We hold that a, b, c are true. In section 6, we shall try to show that a, b, and c are true.

There is, however, a common theme which runs throughout the above passages. It is this:

> (11) If something is a universal, then it is truly predicable of some subject.

(11) does not assert that a universal cannot, logically speaking, be truly predicable of more than one subject. What is asserted is that

if something is a universal, then it must be truly predicable of at least one subject.

It would also appear that if a universal is predicated of a subject (whether the subject is a particular or another universal), then the universal must either be predicated truly or falsely of its subject. Aristotle makes this point in On Interpretation 17b26:

> Of contradictory statements about a universal taken universally it is necessary for one or the other to be true or false; similarly if they are about particulars, e.g. 'Socrates is white' and 'Socrates is not white.'

Thus, we shall reformulate (11) as:

> (12) If something is a universal, then it is truly or falsely predicated of some subject.

Now if something is truly (or falsely) predicated of every specimen of at least one kind, then it is a universal, viz. P2. This claim does not beg the question of which universal is substance. The color white is a universal since white is truly (or falsely) predicated of some subject (2a19); it is also truly predicable of every specimen of at least one kind, i.e., the individual white (1a20, 2a34.) Man is also a universal (17a38, 1036b29, 1037a5-10,) since it is truly predicable of every individual man (2a19). Animal is a universal (1038b23), for it is truly predicated of every e.g., individual man (73a27-32.).

We conclude that not only is P2 true, but it does not beg any questions about the truth or falsity of T1.

5. Another argument to the same conclusion.

Thus far, we have tried to show that P1, P2, and P3 are true. If our arguments are cogent, then it follows that if something is substance, then it is a universal. We shall now offer another argument to the same conclusion.

In 1038b30-33, Aristotle asserts:

> And in general it follows, if man and such things are substance, that none of the elements in their formulae is the substance of anything, nor does it exist apart from the species or in anything else; I mean, for instance, that no animal exists apart from the particular kinds of animal, nor does any other of the formulae exist apart.

By "such things" Aristotle means anything which (like man) is not universally predicable or, on our view, anything which is truly predicable of every specimen of exactly one kind. Aristotle's claim is not that man and any other thing which is not universally predicable e.g., horse, are not substance; his claim is rather that granting that they are substance, this does not show that the parts of their definition are also substance, for the genus, which is a part of the definition of the species, is truly predicable of every specimen of more than one kind.[4] For example, animal is truly predicable of every individual man, every individual horse, etc. Hence, the genus animal is universally predicable. Aristotle says that nothing which is universally predicable can be substance (1038b-11). Thus, the genus animal cannot be substance.

6. Several objections to our thesis that some universals are substance; replies to these objections.

Let us consider the following objections which might be raised against our thesis.

Objection (1). In 1003a12-16 and in 1038b34-1039a1, Aristotle gives the following argument. If the universal is substance, then substance must be a such. For anything which is predicated in common indicates a such. But substance is not a such; but rather, substance is a this. Hence the universal cannot be substance. Furthermore, if it is claimed that a common predicate is a this, then it would follow that, e.g. Socrates will be man, animal, and himself, if each of these indicate a single thing and a this, i.e. a unity.

Reply to objection (1). It should be noted that objection (1) has two distinct but related arguments. We shall try to answer objection (1) by considering each argument separately.

First, we do not hold that all universals are substance; but rather, we hold that only those universals which are truly predicable of specimen of exactly one kind are substance. Now if by "predicated in common," Aristotle means that which is truly predicable of specimen of more than one kind, then there is no inconsistency between our thesis and what is being asserted in 1003a12-16 and 1038b34-1039a1.

At this point, a rejoinder might be raised. Our reply does not meet the force of the first argument. Even if it is granted that nothing which is truly predicable of specimen of more than one kind is substance, it will still be argued that nothing which is truly predicated of specimen of any kind is substance. The reason is that anything which is truly predicable of some individual will always be a plurality. But substance is a this. For example, the species man is nothing more and nothing less but the plurality of individual men; it is not a this. Hence, man cannot be substance.

The rejoinder is unsuccessful in that it assumes that a universal cannot be a this for Aristotle. This assumption is false. In the Metaphysics, book Iota chapter 1, we find Aristotle saying that what it is for something to be a this is that it be a unity:

> For this reason, too, 'to be one' means to be indivisible, being essentially a this, and capable of being isolated either in place, or in form or thought; or perhaps 'to be whole and indivisible.' (1052b15-17.)

Earlier in book Iota, he mentions the sorts of things which are said to be unities; he mentions the particular and the universal:

> Some things, then, are one in this way, qua continuous or whole, and the other things that are one are those whose definition is one. Of this sort are the things the thought of which is one, i.e., those the thought of which is indivisible; and it is indivisible if the thing is indivisible in kind or in number. (3). In number, then, the individual is indivisible, and (4) in kind, that which in intelligibility and in knowledge is indivisible, so that that which causes substances to be one [the species form] must be one in the primary sense. (1052a28-33, brackets added.)

Aristotle then says that what it is for something to be a unity is the indivisibility of its movement, or its thought, or its definition:

> 'One,' then, has all these meanings--the naturally continuous and the whole, and the individual and the universal. And all these are one because in some cases the movement, in others the thought or the definition is indivisible. (1052a34-37.)

It is important to note, however, that not all things which are indivisible in their "intelligibility" are indivisible in the same way. There are two ways in which things are said to be indivisible with respect ot their intelligible structure. They are: numerical indivisibility and specific indivisibility. What is numerically undivided is singular and cannot be truly predicated of many things. It is

per se particulars which are for Aristotle numerically indivisible in their intelligible structure. For example, Socrates is numerically indivisible with reference to his form. If he were to be divided into halves or into quarters, then what we would have as a result of this division is not Socrates the man nor would we have two Socrates (as we would have two drops of water after "splitting" a drop of water.) The reason is that we would have destroyed whatever it is that constitutes some portion of flesh and bones as Socrates, i.e., his formal cause. In short, the intelligible structure of Socrates would have been destroyed.[5]

On the other hand, some universals are unities in that they cannot be specifically divided. For example, the species man cannot be divided into two different species. The species man is, as it were, the last universal on the genus-species-specimen model; man cannot be broken down into two (or more) universals such that the two universals are different in kind. It is interesting to note that, thus far, there is nothing to block the claim that the species man can be broken down into numerically different men.

It is clear, then, that when Aristotle says that a particular is a this, the truth-conditions for that claim will be different from the truth-conditions for the claim that the species form is a this. In the former case, a particular is a this on the condition that it cannot be numerically divided without it being destroyed. In the latter case, the species form is a this on the condition that it cannot be divided into universals of a different sort. Thus, we conclude that some universals, most notably, the last species, are thises in virtue

of being a unity in the latter sense. Since we hold that some universals, i.e., the last species in the category of substance, are substance, it follows that the substance of a thing is a this.

Secondly, in 1003a9-10, Aristotle says that if the universal is substance, then it would follow (with some additional premises) that Socrates will be animal, man, and himself. This is the second argument which is given in objection (1). Our reply is that Aristotle's second argument suggests that the genus cannot be substance, for animal is universally predicable of Socrates, man, and itself. If man were the sort of universal which could not be substance, then what ought to have followed is that Socrates will be different men, namely, himself and Coriscus, Callias, etc., since man is truly predicated of Socrates, Coriscus, Callias, etc. But he does not draw this inference. Thus, Aristotle must have the genus in mind when he says that the universal cannot be substance.

Objection (2). In 1038b15, Aristotle says that substance is not predicable of anything. On the other hand, the universal is predicable of some subject. Hence the universal cannot be substance.

Reply to objection (2). More will be said on 1038b15 in the next section. Let it suffice to say that substance is not truly predicable of anything which is essentially different from it. Man is truly predicable of only individual men and not of some individual horse, or horse, or animal, etc. This is what I take to be the force of "substance is not predicable of anything." If my interpretation is correct, then all that can be concluded is that some universals are not substance.

Objection (3). The notion of universal predication seems to beg certain issues. One would expect that if something is a universal, then it is universally predicable. But the proposed thesis assumes that the implication does not hold. The onus is, then, on those who hold this thesis to show why the implication does not hold.

Reply to objection (3). We shall attempt to meet the challenge in the following way. Consider the following definitions:

A is universally predicable of many things $=df_1$.
(i) A is truly predicable of numerically different individuals of a certain kind.

A is universally predicable of many things $=d_2$.
(i) A is truly predicable of numerically different individuals of more than one kind.

D1 does not rule out man as being universally predicable, for man (as well as animal and white) is truly predicable of numerically different individuals of a certain kind, i.e. individual men. Indeed, any species meets D1. If this is correct, then no species from the category of substance can be substance, since nothing which is universally predicable is substance.

D1 must be rejected. If D1 is the correct definition of "universally predicable," then Aristotle would have no grounds for even allowing the assumption that man is substance. But he allows this assumption (1038b30-33.) Thus, if Aristotle is correct, then D1 is inconsistent with Aristotle's conclusion in Z, 13.

D2 rules out any species from the category of substance. For example, man is not truly predicable of numerically different individuals of more than one kind. Thus, man fails to meet D2. On the other hand,

the genus from the category of substance (as well as the species and genera from the nonsubstance categories) meets D2. For example, animal is truly predicable of numerically different horses and men.

I suggest that D2 is the correct definition of "universally predicable," on the grounds that Aristotle concludes that animal cannot be substance since it is universally predicable from the granted assumption that man is substance. Thus, if animal is not substance because it is universally predicable, then man cannot be universally predicable in the way that animal is. This does not imply that man is not truly predicable of numerically different individuals. Furthermore, if D2 is the correct definition, then it is false that if something is a universal, then it is universally predicable, for in accordance to D2, some universals are not universally predicable. Consequently, I propose that D2 is consistent with Aristotle's conclusion in Z, 13.

Objection (4). Consider the following counterexample:

1) If the Prime Minister is said of some individual, *a*, and *a* is not in something, then the Prime Minister is not predicable of something else.

Let A = the Prime Minister.

2) If *A* is substance, then *A* is said of some individual, *a*.

Hence

3) If *A* is substance, then *A* is not truly predicable of something else.

4) If *A* is not truly predicable of something else, then *A* is truly predicable of exactly one kind of thing.

5) *A* is said of Pierre Trudeau.

Hence

6) So A is not truly predicable of something besides Trudeau.

But it is false that A is truly predicable of exactly one kind of thing; it is truly predicable of male and female, e.g., Mrs. Ghandi.

Reply to objection (4). The counterexample does not work. Firstly, male and female do not constitute for Aristotle different kinds of things. Consider the following passage:

> One might ask the question, why woman does not differ from man in species, when female and male are contrary and their difference is a contrariety; and why a female and a male animal are not different in species, though this difference belongs to animal in virtue of its own nature (1058a29-34.)

Aristotle answers:

> But male and female, while they are modifications peculiar to animal, are so not in virtue of its essence but in matter, i.e., the body (1058b22-24.)

Secondly, we hold that if A is not truly predicable of anything else, then A is truly predicable of every specimen of exactly one kind. Now the Prime Minister is not truly predicable of every man or woman. It is only truly predicable of Pierre Trudeau, Edward Heath, and Indiri Ghandi, although it is (falsely) predicable of any other man or woman. Thus, the Prime Minister is not substance, since it is not truly predicable of every specimen of exactly one kind.

Objection (5). The claim that A is truly predicable of every specimen of exactly one kind does not rule out certain predicates which Aristotle denies are substance. For example, in Topics 5, 102a16-24, he says that certain properties, e.g., the capacity to learn grammar, laughing, etc., are not substance predicates, but yet they are not truly predicable of anything else except man.

Reply to objection (5). The objection is correct. But it does not damage our position. We do not claim that a sufficient condition for something to be substance, is that it be truly predicable of every specimen of exactly one kind. We only claimed that it was a necessary condition.

I might add that if these properties which Aristotle cites in Topics 5 can be construed at the last differentiae, then it turns out that these properties are substance. In the Metaphysics, Aristotle identifies the last species with its differentia and he also claims that the last differentia is substance. These claims occur in Z, 12 1038a15-21 and 25-30:

> And the process wants always to go on so till it reaches the species that contain no differences. And then there will be as many kinds of foot as there are differences, and the kinds of animals endowed with feet will be equal in number to the differentiae. If then this is so, clearly the last differentiae will be the substance of the thing and its definition, since it is not right to state the same things more than once in our definitions (1038a15-21.)
>
> If then a differentia of a differentia be taken at each step, one differentia--the last--will be the form and the substance (1038a25.)

Objection (6). I shall now present what I take to be the most serious objection to our thesis. The objection begins by presenting an alternative interpretation of the three cited passages (viz. 73b5-8, 101b23-25, and 1040b23-25), and then proceeds to show the incoherence of proposition (9).

The offered interpretation is this. Aristotle could be taken to mean in the three cited passages that substance is not truly predicable of anything which is numerically distinct from it. On this view,

Socrates who is a primary substance is not truly predicable of anything which is numerically distinct from him. But note that Socrates would be truly predicable of something, namely, himself. This interpretation is supported by the following passage:

> It is clear then that some things are naturally not stated of anything; for as a rule each sensible thing is such that it cannot be predicated of anything, save incidentally: for we sometimes say that that white object is Socrates, or that which approaches is Callias (Prior Analytics, book I, 27, 43a32-35.)

If the interpretation is correct, then it follows, so the objector argues, that proposition (9) is incoherent, i.e., it entails a contradiction. His argument is as follows:

1) Socrates is not truly predicated of anything else, if and only if (i) Socrates is said of some subject, (ii) whatever Socrates is said of does not inhere in something, and (iii) for any kind K and for all time t, if at t Socrates is true of every instance of K, then Socrates=K at t (where [iii] is a necessary truth.)

2) Socrates is said of exactly one subject, namely, himself.

3) Socrates does not inhere in anything.

Therefore

4) What Socrates is said of does not inhere in something. (2) (3)

5) Socrates is not truly predicated of anything else.

6) If (1), (2), (4) and (5), then it is (necessarily) false that Socrates is always true of every instance of some kind K but that he is not identical with K at some time t.

Therefore

7) It is (necessarily) false that Socrates is always true of some kind K but that he is not identical with K at some time t. (1) (2) (4) (5) (6)

8) If (7), then Socrates must be a universal (since only universals can be true of every instance of a kind.)

Therefore

9) Socrates must be a universal. (7) (8)

Aristotle has given, however, numerous arguments to show that whatever is a particular cannot be truly predicated of many things. Since Socrates is a per se individual, he cannot be truly predicated of several things. Hence, Socrates cannot be a universal. Hence, if Socrates is not truly predicated of anything else, then proposition (9) is incoherent.[6]

I shall offer three replies to this objection. The first two are designed to show that we need not accept the alternative interpretation as an accurate statement of the cited passages. The last reply tries to show that even if the interpretation is correct, it does not follow that proposition (9) is incoherent but only that (9) is at worst false.

Reply (1) to objection (6). The first and, perhaps, the weakest reply is that it is not clear that Aristotle is interested in this kind of predication in the later books of the Metaphysics and in some of his earlier works, e.g., Categories. For example, in Categories 1a20, he says that "things that are individual and numerically one are, without exception, not predicated of any subject." This claim, however, leaves opened the question of whether by "any subject" Aristotle also meant to include the individual itself. To be sure, there is a passage in the Metaphysics in which Aristotle answers this question clearly. In

book Delta, chapter 9, he says that "Socrates is not [truly] predicable of more than one subject and therefore we do not say 'every Socrates' as we say 'every man.'" (1018a2-4.) But book Delta is considered to be by some scholars an early book in the Metaphysics. If this is correct, then the passage would not be sufficient for claiming that this notion of predication is also operative in the later books.

It is clear however, that Aristotle is interested in this kind of predication in the Topics and in the Sophistical Refutations. For example, in Topics 103a3, he gives the sentence

> He who is sitting is [numerically the same as] Socrates (bracketed expression added.)

as an example of one kind of identity relation. In the Sophistical Refutations 179a33-34, he uses the sentence

> The one who is approaching is Coriscus

as a premise in an argument which generates a paradox that is similar to Russell's paradox about King George IV.[7]

I conclude that although the competing interpretation can be strongly supported in Aristotle's logical works, it is not obvious that it is also strongly supported in the later books in the Metaphysics.

Reply (2) to objection (6). I assume that the proponent of the alternative interpretation takes his thesis to be consistent with each of the three cited passages (vide. section 3.1.) In what follows, I shall argue that the interpretation does not fit well with the passage from the Posterior Analytics. My argument will consist of a presentation of another argument which is based on the passage from the Posterior Analytics; a rebuttal to that argument; and a reply to show that the proponent of the second interpretation is not entitled to the rebuttal.

Let us consider again 73b5-8:

> . . . that is essential which is not predicated of a subject other than itself: e.g., "the walking thing" walks and is white in virtue of being something else besides; whereas substance, in the sense of whatever signifies a "this somewhat" is not what it is in virtue of being something else besides.

One tentative interpretation of 73b5-8 that is neutral of the two competing interpretations is this: substance is not truly predicable of something that is other than what is predicated. Consider Aristotle's own example:

S1. The walking thing is white.

The point to be made about S1 is that the walking thing is not a per se entity since what the color white is truly predicated of in S1 is something other than the walking thing. For example, it may be that it is Socrates who is walking and who happens to be white; and, certainly, Socrates is different from the color white.

Now if S1 is the model by which we are to understand Aristotle's remarks in 73b5-8, then the following argument can be made:

1) Let S2: the walking thing is Socrates.

2) The walking thing = Socrates.

3) Either Socrates in S2 is truly predicated of something that is other than himself or he is truly predicated of something that is not other than himself in S2.

4) If Socrates in S2 is truly predicated of something that is other than himself, then Socrates is not (a primary) substance.

5) But Socrates is (a primary) substance

Therefore

6) It is false that Socrates in S2 is truly predicated of something that is other than himself. (4) (5)

Therefore

7) Socrates is truly predicated of something that is not other than himself in S2. (3) (6)

8) If (7), then whatever is true of Socrates is also true of that which is the same as Socrates.

Therefore

9) The walking thing in S2 is (a primary) substance. (2) (5) (7) (8)

10) But (9) is false.

Since premises (2)-(6), (8), and (10) are true, we conclude:

11) It is false that Socrates is truly predicated of something that is not other than himself in S2.

(11) is equivalent to:

12) Socrates is truly predicated of something that is other than himself in S2.

Now (7) and (12) are contradictories. But if (7) and (8) are true, then although (12) must be false it would follow that the walking thing in S2 is substance. But Aristotle denies that the walking thing is substance. On the other hand, if (12) is true, then although (7) must be false it would follow that Socrates is not (a primary) substance in S2 provided that the interpretation of S1 holds for S2. Thus, either the walking thing in S2 is substance or Socrates is not (a primary) substance in S2. I submit that for the moment my objector is committed to this last consequence.

Is the objector committed to premise (8)? The answer turns on how "other than" is to be understood in the argument. If substance is not truly predicable of something other than what is predicated,

then it is an open question whether substance is truly predicated of only those things which are the same in essence with it or which are the same in number with it. The plausibility of the subsequent argument rests, however, on the assumption that "other than" means numerical difference. If this is not what the expression means in the argument, then premise (8) is false. Since my opponent claims that substance is not truly predicated of anything numerically distinct from it, then he must hold something like premise (8) to be true.

One additional point should be made. The above argument assumes that what Socrates is truly predicated of in S2 is the walking thing. We are asked, in effect, to assume that the walking thing is a genuine subject of predication in S2. Our opponent also holds this assumption since he takes S2 to be a genuine case of predication.

The following rebuttal might be made. The interpretation of 73b5-8, which the argument is dependent upon, is totally inaccurate. What Aristotle is actually saying is this: substance is not truly predicated of a subject other than itself, i.e., the subject of predication. Thus, the walking thing is not (a) substance in S2 since what it is to be the walking thing is to be something else which happens to be walking, e.g., Socrates. On this new interpretation, it would not follow that Socrates is not (a primary) substance in S2 although he is truly predicated of the walking thing in S2. Thus, the above argument is unsuccessful since premises (3) and (4), and consequently, the rest of the argument, are stated incorrectly.

The rebuttal is correct. But its cogency rests on a shift in the meaning of "other than." The expression now means being essentially

different. We grant that Socrates and the walking thing in S2 are numerically identical. But the walking thing is something other than itself, i.e., essentially different from what it is to be the walking thing essentially. What it is to be the walking thing is to be something, i.e., a primary substance, which has the accidental property of being that which is currently walking. This is why Aristotle says that the walking thing is not a genuine subject of predication. (83a10-15.)

If our opponent is to be consistent, then he cannot have this sense of "other than," i.e., essential difference. On the other hand, if he were to be inconsistent, then his objection would lose its force. The point of his objection is that if substance were truly predicated of things which are not one in number but which are one in essence with it, then we would have the absurd consequence of Socrates being truly predicated of Plato, Coriscus, and any other man. Thus, if the objector's thesis is to be effective, he must hold to the view that substance is truly predicated of only those things which are one in number with it.

It is clear, however, that my opponent's interpretation of "other than" will not work. It has the consequence of rendering "substance is not truly predicable of a subject other than itself, i.e., the subject of predication" as an incoherent statement. The implication is that something could be numerically distinct from itself and that such a thing would not be substance. But it is a truism that nothing, including things like the walking thing, could ever be numerically distinct from itself.

The objector does have a way out of this criticism. He could paraphrase S2 as

S2'. Socrates who is walking is Socrates

and insist that Socrates is truly predicated of something that is not numerically distinct from itself in S2', namely, Socrates. He may also argue that Socrates and the universal walking are numerically distinct and, therefore, Socrates is not truly predicated of walking in S2'.

Two replies are in order. First, although we grant the move of paraphrasing sentences like S2 into sentences like S2', the move has the unfortunate consequence of trivializing my opponent's position. The only cases which would be cited as cases of substance being truly predicated of some subject are these: "Socrates is Socrates," "Callias is Callias," "Coriscus is Coriscus," etc. Second, the fact that Socrates and the universal walking are numerically distinct is irrelevant to the claim that Socrates is not truly predicated of walking in S2'. It turns out that Socrates is not predicated of walking at all in S2'; he is (truly) predicated only of himself in S2'. Thus, the objector's second point does not show, in this particular example, that substance is not truly predicable of anything that is numerically distinct from it.

I conclude that the proponent of the alternative interpretation must give an account of 73b5-8 such that his account is coherent and it does not allow the thesis that accidental unities, e.g., the walking thing, etc., are (primary) substance.

Reply (3) to objection (6). Let us assume that the alternative interpretation is correct. The objection assumes that it follows that proposition (9) is incoherent merely from the correctness of the competing

interpretation. But I argue that this does not follow at all. What follows is at worst the falsity of (9).

Assume that Socrates is not truly predicable of anything else. According to (9), we are allowed to infer that if Socrates is not truly predicable of anything else, then the following must be true:

13) Socrates is said of some subject.

14) Whatever Socrates is said of does not inhere in something.

15) For any kind K and for all time t, if Socrates is true of every instance of K at t, then Socrates is identical with K at t (where (15) is a necessary truth.)

I contend that (13) is false. The basis of my contention rests upon what I take to be a false assumption on the part of my objector.[8] The assumption is this: if x is truly predicated of y, then x is said of y. The falsity of this assumption is apparent in the following example. The color white is truly predicated of Socrates; but Aristotle denies that it is also said of Socrates since Socrates is not a color.[9] Although I take this assumption to play a large role in objection (6), the demonstration of its falsity is not sufficient to show what I intend to show, namely, that proposition (9) is coherent. Thus, I shall give an argument to show why (13) is false.

It is agreed on all sides that the sentence

S3. That which is walking is Socrates

is a case of predication. But it is also claimed that in S3 Socrates is said of that which is walking. The argument is that since Socrates and that which is walking are one and the same individual (if S3 is

true), and since Socrates is said of himself, then it follows that Socrates is said of that which is walking in S3.

I shall now argue that while the premises of the above argument are true, its conclusion is false.

If it is true that Socrates is said of that which is walking in S3, then certain conditions must obtain. First, "that which is walking" indicates that which is walking. Second, "Socrates" in S3 introduces Socrates and a man. Third, the definition of whatever is introduced by "Socrates" in S3 should always be truly predicated of that which is walking.

It is the third condition which is not fulfilled. Consider the following argument. Since one of the things which is introduced by "Socrates" in S3 is a man, then the definition of a man should always be truly predicated of that which is walking. Now a man is essentially a human being. Since the essence of a thing is indicated by the thing's definition, it follows that being a human being and humanity is the definition of a man. If this is true, then being a human being and humanity should always be truly predicated of that which is walking. But neither being a human being nor humanity is the essence of that which is walking, for what it is to be the latter is just to be something else which happens to be walking. "Something else" need not, however, indicate a human being or humanity. It may indicate, in some instances, a substance which is not essentially a human being. If the argument is thus far acceptable, then we can conclude that Socrates is not said of that which is walking in S3. This does not, of course, entail that Socrates is not truly predicated of that which is walking in S3.

Given that (13) is false, the conjunction of (13), (14), and (15) is also false. Since the conjunction forms the consequent of one of the two conditionals that is entailed by proposition (9), and since we assumed that Socrates is not truly predicated of anything else, it follows that (9) is false. This is not to say, however, that (9) entails a contradiction.

The obvious reply is that our account of said of predication is unsatisfactory. But if this is to be lodged against us, then it would appear that some other plausible account must be in the offing. I am not, however, in the position of making out the basic theses of such an account. Accordingly, I shall end the present discussion by leaving this reply unanswered.

7. Some plausibility arguments for the thesis that some universals are substance.

The following arguments are designed to show that if our thesis is correct, then certain problems which arise in Z, 13 can be resolved. If these arguments are successful, then their success should count in favor for the plausibility of our thesis.

Problem (1). In 1038b15-16, Aristotle gives the following argument:

> Further, substance means that which is not predicable of a subject, but the universal is predicable of some subject. Hence, the universal is not substance.

In his commentary of Z, 13, Aquinas points out that Aristotle's argument is unsound.[10] Aquinas says:

> It is said in the Categories that it belongs to the notion of substance not to exist in a subject. But to be predicated of a subject is not opposed to the

> notion of substance. Hence in that place second substances are posited, and these are predicated of a subject.

If we allow Aquinas to assess Aristotle's argument in terms of the views which are espoused in the Categories, then it would appear that Aquinas is correct. Moreover, if we are to salvage Aristotle's argument, then we must interpret "substance" in 1038b15-16 as primary substance since primary substances are not truly predicable of anything. Unfortunately this presents a different problem. The thesis of Z, 13 is that nothing which is universally predicable can be the substance of a thing. Aristotle is not claiming that nothing which is universally predicable is a primary substance. Hence, if by "substance" Aristotle means a primary substance, then his argument is out of context in Z, 13. We are left, then, with the following disjunction: either the argument that is stated in 1038b15-16 is unsound or it is sound but it does not establish the central thesis of Z, 13.

A proposed solution to problem (1). We contend that 1038b15-16 is sound and consistent with Aristotle's thesis in Z, 13. To show this, the following steps must be taken.

Firstly, if Aristotle's argument is to be consistent with his thesis in Z, 13, then "substance" must be interpreted as the substance of a thing, i.e. the species form of a thing. Thus, we reject the notion of a primary substance as an adequate interpretation of "substance" in 1038b15-16.

Secondly, if "substance" is to be interpreted as the substance of a thing, then we must answer Aquinas' claim that the first premise of

Aristotle's argument is false, for the species form, which is secondary substance, is truly predicable of some subject.

To meet Aquinas' objection, we argue that the force of the first premise is this:

> 1) The substance of a thing is not truly predicable of anything else other than the [sort of] things of which it is essentially identical.

Premise (1) asserts that the substance of a thing is truly predicable of the thing which has it as its substance and of any other thing which is specifically the same. We have already given arguments to show that, for something to be substance qua species form, it is a necessary condition that it be truly predicable of specimen of exactly one kind. Thus, we hold premise (1) to be true.

Now Aristotle asserts that the universal is predicable of some subject. If Aristotle is to derive the conclusion that the universal is not substance, then we must interpret the second premise as asserting that some universals are truly predicable of some subject of more than one kind. We have also given an argument to show that this interpretation is correct. Thus, what follows is that some universals are not substance qua the species form of a thing. To put it another way: by "the universal" Aristotle means the genus and the species from the non-substance categories.

If our interpretations of the first and second premises of Aristotle's argument are accepted, then 1038b15-16 is a sound argument and it is consistent with Aristotle's main contention of Z, 13.

Problem (2). In 1039a23, Aristotle says that if a substance is not composed of actual substances or of universals, then it will

lack composition. Consequently, the sensible substance will lack definition, since the definition will have parts. But substance is the object of definition. Hence either nothing is definable or substance is definable in some other sense.

A proposed solution to problem (2). If our thesis is correct, then the difficulty can be resolved. Our solution is this. One element of the *per se* individual is its species form. The species form is a universal. Thus, we might interpret Aristotle as claiming that no universal, which is truly predicable of different species, is an element of a *per se* individual. For example, since the genus animal is truly predicated of different species, it is not an element in the composition of an individual man. But the species form man is a constitutive element in the composition of an individual man. Consequently, the *per se* individual is a composite, for it is composed of its species form, which is a universal, and a particular portion of matter. We can conclude, then, that a *per se* individual is definable.[11]

8. Summation (II).

In this chapter, we offered our solution to Aristotle's dilemma. We argued that T1 is false. We tried to show that for Aristotle some universals (namely, the last species in the category of substance, e.g., man) are substance.

Our argument consisted of four premises. They are: (P1) if something is substance, then it is truly predicable of every specimen of exactly one kind; (P2) if something is truly predicable of every specimen of at least one kind, then it is a universal; (P3) if something

is truly predicable of every specimen of exactly one kind, then it is truly predicable of every specimen of at least one kind; and (P4) there is something which is a universal and a substance. (P5, viz."if something is substance, then it is a universal," is the conclusion that is derived from P1, P2, P3, and P4.)

In section 1, we argued that P3 is true. In section 2, we presented arguments to show that Aristotle holds that substance is truly predicable of some subject. The task in section 2 was required since (a) Aristotle seems to repudiate this view in Z, 13, and (b) P1 assumes that Aristotle does hold this view in the Metaphysics. In section 3, we presented our case for the truth of P1. We tried to show that Aristotle holds some form of P1, i.e., substance is not predicable of anything else, in various stages in his philosophical writings. We tried to give the conditions under which P1 is true. Our result was that only the species from the category of substance are truly predicable of every specimen of exactly one kind, namely, their own respective specimen. This conclusion was shown to be compatible with certain views which are expressed in the Metaphysics. In section 4, we argued that P2 is consistent with Aristotle's view of a universal. Furthermore, we tried to show that P2 does not beg any questions against T1. In section 5, we argued that P5 is true. In section 6, we considered several objections which might be raised against our proposal. We tried to answer these objections. In section 7, we offered two plausibility arguments for our proposal. We tried to show that (a) the argument stated in 1038b15-16 is sound and consistent

with the central contention of Z, 13; and that (b) the problem that is raised in 1039a23 can be resolved by granting that no universal which is predicated universally can be a component of a concrete individual.

FOOTNOTES TO CHAPTER IV

[1] I gave a different account in an earlier draft of this chapter. My account was this:

> A is said of a in some sentence of the form ⌜ψ is a φ⌝ --where ψ is replaced by a and φ is replaced by A-- if, and only if, (i) A is predicable of a, and (ii) if A has a definition, then the definition is always predicable of a.

My account was deficient in that it allowed e.g., "Socrates is a color" as a case of said of predication. Although color is predicated falsely of Socrates, it is still predicated of Socrates if Socrates is e.g., white, since color is the definition of white. This is sufficient for color to be said of Socrates on my account. Note, however, that condition (iii) of A3 rules out cases like "Socrates is a color."

[2] In Categories 2a34, Aristotle says that "other things are either said of the primary substance or in them as subjects." Since non-substance individuals are not said of any subject, it follows that all non-substance individuals are in primary substance (1a20).

[3] It might be said that (9) does not completely rule out all particulars. The reason is that no particular is truly predicated of anything else since they are not predicable (truly or falsely) of anything. If it is true that particulars (substantial and non-substantial) comprise the class of non-predicables, then (9) would have to be amended in this way:

> (9') If A is predicable of some subject, then A is not truly predicated of anything else, if, and only if, (i) A is said of some subject, a, (ii) whatever A is said of does not inhere in something, and (iii) for any kind K, if A is true of every instance of K, then A=K, (iv) [iii] is a necessary truth.

The question of whether there is such a class of non-predicables will not be discussed in this chapter. My point is that if there is such a class, then (9) is to be understood as (9').

[4]It is true that in merely assuming that something is the case, it does not follow that what is assumed is the case. But my point is that Aristotle has not yet cut off any resources for allowing his interlocutor to assume that man is substance. If Aristotle has successfully argued for the thesis that no universal of any sort is substance, then one would expect that Aristotle would have disallowed the assumption in 1038b30.

[5]Note that this paragraph could be seen as an argument for Albritton's thesis, i.e., the form of a thing is an individual. The argument would go like this. If in dividing Socrates in half we have destroyed his intelligible structure, then we have thereby destroyed that which makes these flesh and bones Socrates. But if this is true then we have destroyed something which is an individual, for the universal is indestructable, i.e., it cannot be destroyed even if any one of its instances is destroyed. Socrates' form is that which constitutes these flesh and bones as Socrates. Thus, Socrates form is an individual. Furthermore, it is also true that in dividing Socrates in half we have also destroyed Socrates, since what is remained is not Socrates but rather his corpse. Thus, Socrates is his own form.

The crucial move is in treating the intelligible structure of Socrates as that which makes Socrates' matter the very thing that he is, namely, Socrates. If the intelligible structure of an object is what constitutes the object as being of a certain sort, then the final conclusion in the above argument would not follow. The reason is that in dividing Socrates in half, we have thereby destroyed a man as well as Socrates; but this would not entitle one to infer that Socrates' form is an individual.

[6]It should be pointed out that conclusion (7) is not stated correctly. What follows is: it is (necessarily) false that Socrates is always true of every instance of some kind K but that he is not identical with K at some time t.

[7]For a detailed analysis of the structure and Aristotle's solution to the paradox, see Sandra Lynne Peterson's The Masker Paradox, Ph.D. dissertation, No. 70-8385, University Microfilms, Inc., Ann Arbor, Michigan.

[8]I do not discuss proposition (15) since I think that Socrates is not the sort of thing that can be said to be true of every instance of a kind. One of the conditions for something being true of every instance of a kind is that it have a proper subset. On some readings of ontology, this means that whatever it is that is said to have this feature must be a universal. But I have not opened myself to the charge that Socrates is a universal, since I deny that Socrates can have a proper subset. One last charge may be laid against me. Suppose that

by chance it turned out that Socrates was always the only animal that ever existed. If this were true, then Socrates would be identical with the kind animal. Presumably, Socrates would then be a universal since he would be truly predicable of every instance of the kind animal, namely, himself.

Two points should be made. First, even if the original assumption were true, it would not follow that Socrates is a kind. What would follow is that Socrates was and is the only existing specimen of a kind. Second, the necessity condition in (8") rules out this kind of case which is like the one that I mentioned in the body of the chapter.

[9]It should be noted that if "white" functioned as an adjective in the sentence "Socrates is white," then white is said of Socrates. The reason is that the adjective "white" introduces a white thing and the definition of a white thing is a per se colored individual. Furthermore, a per se colored individual is always truly predicated of Socrates.

It is clear, then, that Aristotle's notion of said of predication rests on his treating all predicate expressions as names exclusively. This is why white is not for Aristotle said of any primary substance, for 'white' is the name of a color and no primary substance is a color.

[10]Thomas Aquinas, A Commentary on the Metaphysics, Vol. II, translated by John P. Rowan, Henry Regenery Co., 1961, p. 517.

[11]I should like to point out a different kind of problem. Aristotle speaks of the universal as being an ingredient which is in the make up of an individual. It is not clear how we are to come up with an individual from conjoining the universal with bits of matter. We might take Albritton's route in answering this problem. That is, we might treat the form as an individual. But then we will have to ask whether the relationship between the individual form and the universal form is the same as that between Socrates and man. Furthermore, it would appear that the universal form would exist apart from any per se individuals, for only the individual form would exist as a part of an individual. Finally, if we deny that there are any universal forms, then we are forced to say that no two things have the same specific form. Undoubtedly, Albritton's answer raises new problems.

I do not think, however, that the question that I am raising is crucial to my thesis, for all I want to show is that a certain problem that is raised in Z, 13 can be solved in our thesis. I only raised the question to point out that there are other problems which our thesis may not be able to answer.

APPENDIX TO CHAPTER IV

T1. No universal is substance.

P1. If something is substance, then it is truly predicable of every specimen of exactly one kind.

P2. If something is truly predicable of every specimen of at least one kind, then it is a universal.

P3. If something is truly predicable of every specimen of exactly one kind, then it is truly predicable of every specimen of at least one kind.

P4. If something is substance, then it is a universal.

P5. There is something which is a universal and a substance.

(1) If A is substance, then A is not truly predicable of anything else.

(2) A is not truly predicable of anything else.

(3) A is truly predicable of only that which is essentially the same as A.

(4) If A is truly predicated of only that which is essentially the same as A, then A is said of some subject a.

(5) If A is truly predicated only of that which is essentially the same as A, then whatever A is said of does not inhere in something.

(6) A is said of some subject a.

(7) Whatever A is said of does not inhere in something.

(8) For any kind K and for all time t, (i) if A is true in every instance of K at t, then A=K at t, and (ii) [i] is a necessary truth.

(9) A is not truly predicated of anything else, if and only if, (i) A is said of some subject a, (ii) whatever A is said of does not inhere in something, and (iii) for any kind K and for all time t, if A is true in every instance of K at t, then A=K at t, and (iv) [iii] is a necessary truth.

A1. "X indicates x" is true, if and only if, "x" is replaced by some grammatically substantival expression and "X" is replaced by the quotation mark name of that expression.

A2. An expression E in a sentence S introduces an item I, if it is true to say that S is about I because it contains the expression E.

A3. For any x and for some y, x is said of y in some sentence of the form ⌜A is B⌝ if, and only if, (i) A indicates y, (ii) B introduces x, and (iii) the definition of anything B introduces is always predicated truly of y.

A4. If a is not predicable of b, then a is in b if, and only if, (i) neither a nor b is predicable of anything, (ii) a is not a part of b, and (iii) a is inseparable from b.

A5. A is true of every instance of B if, and only if, for any x and for all time t, if (i) B is a proper subset of A at t, then if (ii) B is truly predicable of x at t (in some sentence of the form ⌜ψ is a φ⌝--where φ and ψ are replaced by B and some name for x), then (iii) A is truly predicable x at t (in some sentence of the same form.)

POSTSCRIPT

In a letter from Professor Michael J. Woods, I have learned that he has considerable doubts about whether the position he took in his article is correct (vide., "Problems in Metaphysics Z, Chapter 13.") His doubts stem from the difficulty in showing that there is for Aristotle a distinction between being a universal and being universally predicated.

He also said that the species form is not universally predicable in that it is not truly predicable of any members of a class of things "distinguishable independently of their possession of the form." It is not clear, however, what Woods means by "distinguishable." Presumably, the species form man is truly predicated of Socrates and Coriscus, although they are both numerically distinguishable independently of their possession of the form. If he means, however, that we cannot distinguish Socrates from Coriscus independently from Socrates' form, then the species form will be something distinct from Socrates' form. The reason is that the species form man will be truly predicated of both Socrates and Coriscus, whereas Socrates' form will be falsely predicated of Coriscus but truly predicated only of Socrates.

Professor Woods appears to hold the second interpretation since he also says that it is the form which "marks off a particular substance from its surroundings." This could mean that Socrates' form is what picks out Socrates from everything that is not Socrates. If this is what is meant, then Socrates is his own form. Note that this interpretation is consistent with Albritton's thesis.

I daresay that if this is what Woods holds, then he has undercut his own grounds for denying Albritton's thesis which he explicitly does in his letter. For our part, I am confident that a distinction between being a universal and being universally predicated can be found in Aristotle's writings. Consequently, apart from Professor Woods' misgivings, I believe that our thesis still stands.

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